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SOUTHERN AFRICA

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SOUTHERN AFRICA

Volume 29, Issue 2, 2023



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Occupational Medicine (SASOM)**
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From the Editor . . .

Scholarly research



Gill Nelson,
Editor-in-Chief

Occupational Health Southern Africa has a publication misconduct policy, which addresses plagiarism, duplicate publication, salami slicing, and ethical approval (<http://occhealth.co.za/documents/Policyonpublicationmisconduct.pdf>). However, this is only one aspect of scholarly integrity, defined as “the total set of explicit and implicit professional standards and characteristics that describe an ethical, upstanding member of the scholarly community.”¹

While I have discussed this issue in editorials, in one way or another, several times in the past,²⁻⁴ two different topics regarding publication integrity are currently in the news. The first is the use of artificial intelligence (AI) and the second is the role of editors and publishers in assessing the validity of submitted research manuscripts.

There have been many debates about the use of AI in writing up research, and academic institutions, journals, and others are developing policies. *Occupational Health Southern Africa* will soon follow suit. In the meantime, the International Committee of Medical Journal Editors (ICMJE) has updated the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals to include the use of AI.⁵ Authors are now required to disclose if and how they have used AI, such as ChatGPT. However, “chatbots...should not be listed as authors because they cannot be responsible for the accuracy, integrity, and originality of the work...”

On several occasions, I have tested the validity of answers provided by ChatGPT, only to find that the information provided is incorrect. For example, I asked where the 1930 Johannesburg Pneumoconiosis Conference was held and received an ‘answer’ in only a few moments. Upon querying the source, it referred to a book written by one of my colleagues, but such a book does not exist. After pointing this out, I was directed to an issue in a journal – the information was not there either. ChatGPT is not (yet) ‘all-knowing’, as demonstrated when both versions (ChatGPT-3 and ChatGPT-4) recently failed a gastroenterology exam.⁶

So, while we all need to embrace rather than fear AI in academia, it is important not to assume that the ‘facts’ it provides are correct. Biases in answers provided by AI have also been reported.⁷ Nevertheless, AI is a very useful tool for improving grammar, sentence construction, and other aspects of writing.

Publication integrity is an integral part of scholarly integrity, and can lead to the spread of inaccurate or even “harmful information”; and one of the many roles of editors and publishers is to “publish research findings that are reliable and have valid conclusions.”⁸ Editors rely totally on the robustness of the research process that led to the submission of the paper for publication. These steps include the critical review of the research proposal by a committee of experienced researchers who are knowledgeable about the research topic; a thorough review of the ethical considerations by a certified/recognised ethics committee; and the systematic conduct of the study, including the use of validated tools, the appropriateness of statistical methods used in the analysis of the data, and the correct interpretation of the results from the analysis by the researcher(s). Editors cannot check any of these aspects of the research and assume that the authors have integrity and are ethical in the conduct of their studies. Neither can the reviewers of the papers,

although some do identify some aspects of research misconduct, such as plagiarism and salami slicing.

When there is evidence of research misconduct, the publisher should retract that paper, as advised by the Committee on Publication Ethics (COPE) (<https://publicationethics.org/>). If this is not done timeously, incorrect research findings or other information can quickly be disseminated through the scientific community. RetractionWatch, which effectively names and shames guilty authors (and institutions), regularly updates its website, listing the details of papers that have been retracted from peer-reviewed journals. There are currently more than 40 000 retracted papers on the database (<https://retractionwatch.com/>).

Earlier this month, Springer retracted an article that was published in the *Archives of Sexual Behavior*. One of the authors was Michael Bailey, a respected scientist. They reported the results of a survey of more than 16 000 parents who had shared that their children had “suddenly declared a transgender identity after extensive exposure to social media and peer influence.”⁹ Activists, which included “prominent genital surgeon and president of the World Professional Association for Transgender Health, an advocacy organization that promotes sex changes for minors”, condemned the paper and demanded that the editor be fired. Despite a letter of support for the paper from 2 000 researchers and academics, Springer retracted it. The reason they provided for doing so was that there was improper participant consent, as the parents did not specifically consent to the findings being published in a peer-reviewed journal, although they consented to the publication of the results of the survey. If Springer applies this to the thousands of papers it has published, very many will be retracted. We should be cautious of adopting this ‘new’ approach, which is the direct consequence of bullying by those who don’t like to read research findings that challenge their personal narratives.

Both these issues are concerns for the future of academic publishing, although one is notably more harmful than the other.

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SUSTAINABLE RESPONSES TO HIV, AIDS AND TB IN THE WORLD OF WORK SATELLITE SESSION

PROGRAMME



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TIME	TOPIC	PRESENTER
14:00	Welcome and purpose of the session	Mr Nikisi Lesufi: Senior Executive: Environment, Health, and Legacies - Minerals Council South Africa
14:05	South African mining industry's framework in preventing and managing HIV, AIDS and TB	Dr Lindiwe Ndelu: Chief Director for Occupational Health: Mine Health and Safety Inspectorate (MHSI) - Department of Minerals and Energy (DMRE)
14:15	Response of the world of work to the new NSP	Prof Norbert Ndjeka: Chief Director: TB Control & Management - National Department of Health
14:25	Taking Masoyise beyond the mining industry and learning from other industries	Dr Joni Musabayana: Director: International Labour Organization (ILO) South Africa
14:35	Key note address: HIV response in the world of work and the role of the United Nations in the fight against HIV and TB	Mr Nelson Muffuh: Resident Coordinator: South Africa - United Nations
14:50	Launch of Masoyise 2023-2024 strategy	Dr Thuthula Balfour: Head: Health - Minerals Council South Africa
15:00	Messages of support for the new Masoyise 2023-2024 strategy Testimonial	Mr Charles Mkhumane: Health and Safety Officer - National Union of Mineworkers (NUM) Organised labour representative Ms Ntombi Zweni: Masoyise Health Programme beneficiary
15:15	Q&A	All
15:25	Vote of thanks and closing remarks	Mr Brian Ncube: Programme Manager: Mining Regulations - MHSC



Letter to the Editor

The last issue of *Occupational Health Southern Africa* (Issue No. 1, 2023) included the regular report from the Southern African Institute for Occupational Hygiene (SAIOH) to its members. In the report, SAIOH states that, following an assessment by the Occupational Hygiene Skills Forum (OHSF), the Wits School of Public Health MSc Med in Exposure Science programme does not meet “*the qualification criteria at the Registered Occupational Hygienist (ROH) level*”, which is a “*50% occupational hygiene subject content*”.

As the team that developed the Exposure Science curriculum, we are concerned about this outcome. The way in which it is phrased suggests that our NQF Level 9 graduates would not qualify to be certified as registered occupational hygienists (ROHs). In a letter addressed to us on 13 December 2022, the Occupational Hygiene Skills Forum (OHSF) phrased this differently: “... *if a candidate completed qualifications that did not address measurement before enrolling for the ES programme, their knowledge there-of may be lacking. Occupational Hygiene certification assessments administered by SAIOH focus extensively on the technical details of measurement*”.

In response to our request for further clarification on the 50% occupational hygiene subject content, the OHSF, through the PCC Exco, explained that “*the ES programme meets the OH requisites as far as health effects and control measures are concerned*”, but “*identification and measurement of OH exposure*” are not fully covered. Apparently, the 50% requirement relates primarily to allocated time, since, as an example, it is mentioned that only 15–20% of the Wits Exposure Science programme is dedicated to noise and hazchem measurements – much less than in the Occupational Hygiene Training Association (OHTA) courses or other SAIOH-recognised programmes. In our programme, however, we focus on the assessment of exposure, which includes, and goes beyond, measurements. For example, we have a full-week course on computational exposure assessment (understanding and applying exposure models).

Although we expected a positive OHSF evaluation outcome, we are not disappointed that our programme does not meet the OHSF criteria. Instead, in addition to the effect on the careers of our graduates, we are concerned about SAIOH's implicit distinction between occupational hygiene and exposure science and the associated required skills of a high-profile professional, e.g. a registered occupational hygienist (ROH).

In short, the two-year MSc Med Exposure Science programme was launched in 2019 because we believe that we can offer industry graduates with the skills to understand and interpret measurement results, beyond traditional compliance testing. The programme comprises 11 one-week courses and a mandatory research project. The key pillars of the programme are understanding the exposure process (from source to receptor) and integration of all exposure pathways (aggregate and cumulative exposures) over the lifetime of an individual (the ‘exposome’).

It is interesting to note that our programme meets all the curriculum requirements and learning objectives as proposed by the European Chapter of the International Society of Exposure Science (ISES). Surprisingly, a stand-alone higher educational programme does not exist in Europe.¹ For an overview of the work titles of the courses, please refer to our article, published in this journal in 2019, where we explain the relationship between occupational hygiene and exposure science.²

Universities in other countries also recognise the intersection between occupational hygiene and exposure science, e.g. the University of Michigan, on its website, states that “*Exposure Science (ExS) underpins several of the disciplines comprising the Environmental Health Sciences. When applied to occupational health, ExS falls within the Industrial Hygiene (IH) domain. Considering IH in the broader context of ExS, the contributions IH professionals are making in modern global society (within and beyond the boundaries of the workplace), and our evolving understanding of health risks as a function of time/life-stage, we have adopted the hybrid term Exposure Science-Industrial Hygiene (ExS-IH) to describe our academic program*”.

While we do not wish to start a public debate on the SAIOH OHSF decision, we believe that *Occupational Health Southern Africa* readers will benefit from an update of our 2019 paper, based on our experiences and those of our graduates, and the further developed curriculum. It is crucial that occupational hygiene in South Africa keeps pace with international developments, and we are proud to contribute to this through the development and roll out of a science-based training and learning programme in the field of exposure science.

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Milly Ruiters, National Chief Inspector Occupational Health and Safety (OHS): Department of Employment and Labour

Milly Ruiters, a registered occupational hygienist, joined the Inspections and Enforcement Services Branch at the beginning of April 2023 as the new Chief Inspector of Occupational Health and Safety (OHS). Ms Ruiters is the first Chief Inspector with an occupational health and hygiene-related qualification. During the last 20 years, the position of Chief Inspector was occupied by men; Ms Ruiters is the second woman in this position.

Born in Promosa, Potchefstroom, Ms Ruiters matriculated in 1997. She holds several degrees: a BSc in Biological Science, a BSc Honours degree in Industrial Physiology, an MSc degree in Occupational Hygiene, and a Master of Business Administration (MBA) – all from North-West University (NWU). Ms Ruiters has two additional postgraduate qualifications, viz. a certificate in project management (University of Pretoria) and a diploma in ergonomics (Rhodes University). Before being appointed as Chief Inspector OHS, she was employed by the Compensation Fund as Chief Director: Medical Benefits.

Her previous experience in the Department of Employment and Labour was as a Senior Specialist (Director) in Occupational Health and Hygiene from 2009 until 2017. Prior to that, she was Manager for Medical Services at the Nuclear Energy Corporation of South Africa (NECSA) from 2004 until 2009. She was also employed at Denel, from 2001 until 2004, as an occupational health and hygiene officer.

Ms Ruiters has more than 22 years' experience in the medical field, specialising in occupational health, hygiene, and medical aid for injured workers. During her 22-year career, she has managed occupational hygienists, occupational health nurses, radiographers, occupational medical practitioners, medical doctors, and labour inspectors.

Ms Ruiters has a passion for the prevention of injuries and diseases and her primary focus will be to promote prevention through active partnerships with the Compensation Fund licencees (Rand Mutual Assurance and the Federated Employers Mutual Assurance Company), as well as all the social partners. Another of the major tasks that she will be focusing on is the Occupational Health and Safety (OHS) Bill amendment and promulgation.

The Decent Country Work Programme, signed between South Africa and the International Labour Organization (ILO), and launched by the Minister of Labour on 29 September 2010, encapsulates




Milly Ruiters

Photograph: courtesy of Milly Ruiters

what Ms Ruiters and her team will focus on and implement over the next five years. In doing so, she will need to rely on the tripartite structures, which include the Advisory Council for OHS and, most importantly, those of you who seek to make a difference in OHS. Be the change you want to see!

Milly Ruiters can be contacted at milly.ruiters@labour.gov.za

ACKNOWLEDGEMENT

This article was written with assistance from Tibor Szana, Chief Inspector OHS (Ret.). 

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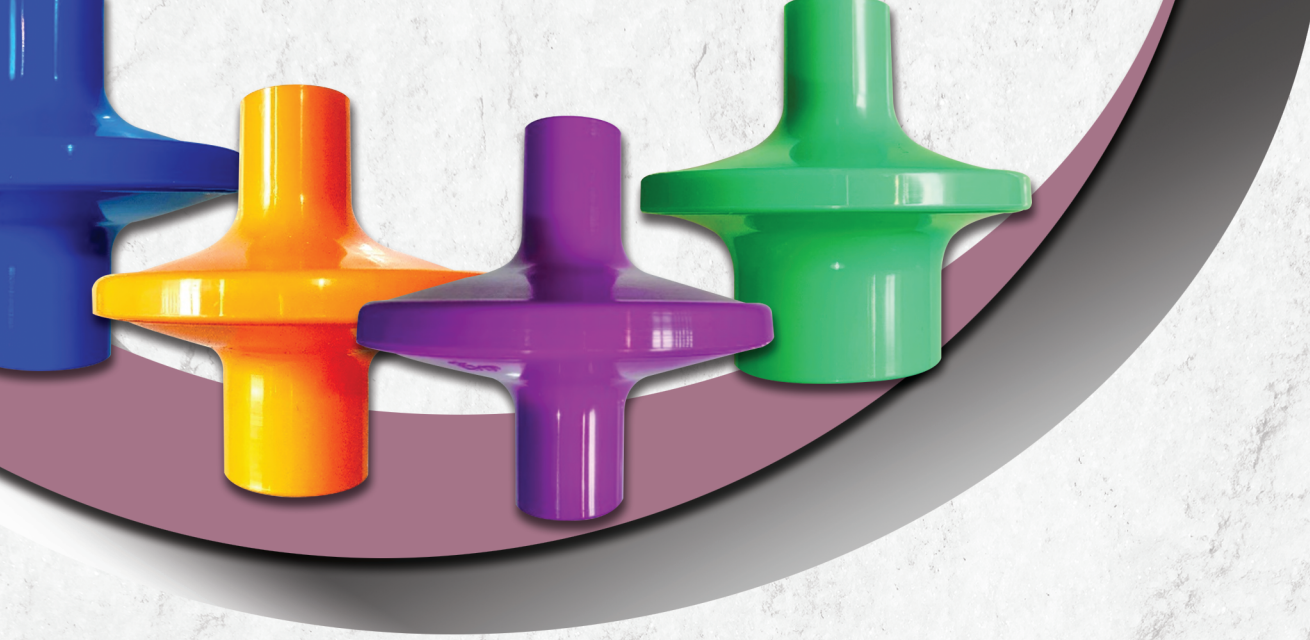
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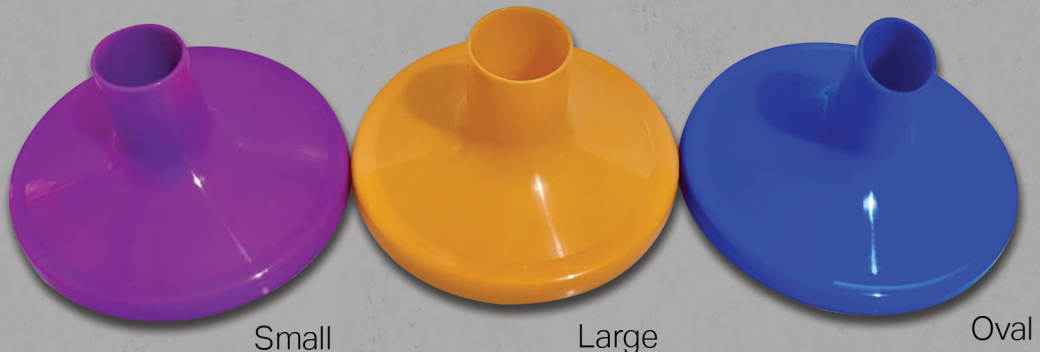
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Appointment of new Tshiamiso Trust CEO

Johannesburg, 8 May 2023

The Tshiamiso Trust is delighted to announce the appointment of its new Chief Executive Officer (CEO), Dr Munyadziwa Kwinda, effective 1 June 2023. Dr Kwinda is a highly qualified health professional and an expert in bioethics, health, and medical law. Currently registered with the Health Professions Council of South Africa (HPCSA) as a medical practitioner, specialising in family medicine, Dr Kwinda holds both science and medicine degrees from the University of Venda and the University of KwaZulu-Natal, as well as postgraduate qualifications in family medicine, and bioethics and health law. He also holds a postgraduate degree in law.

With 20 years' working experience, including years of experience in clinical care, Dr Kwinda has held various management positions at senior, executive, and non-executive levels. In addition to senior positions at hospitals in Limpopo, he has held several positions at the HPCSA, including that of Ombudsman, Acting Chief Operations Officer, and Acting Registrar/CEO.

In a non-executive capacity, Dr Kwinda has also served on various boards and committees, including the South African Medical Association (Board member and National Councillor), the Medical and Dental Professions Board at the HPCSA (Vice-Chairperson), Council, Governance, and Audit and Risk Committees at the Vaal University of Technology (member), the Aeromedical Committee at the South African Civil Aviation Authority (Vice-Chairperson), and the National Health Research Ethics Council (member).

"Dr Kwinda's unique combination of skills and experience in medicine, ethics, law, and management makes him the ideal candidate to carry out the Trust's mandate. We are excited to see the work of the Trust go from strength to strength under his leadership and guidance", said Board Chairperson, Dr May Hermanus.

The Trustees also thank Lusanda Jiya, the acting CEO of the Trust, for her solid leadership in this period of change and transition.

ABOUT THE TSHIAMISO TRUST

The Trust was established to give effect to the settlement agreement reached between six mining companies and claimant attorneys in the historic silicosis and TB class action. It is responsible for ensuring that all eligible current and former mine workers, across southern Africa, with permanent respiratory impairment due to silicosis or



Tshiamiso Trust CEO, Dr Munyadziwa Kwinda

Photograph: courtesy of Tshiamiso Trust

work-related cardio-respiratory TB (or their dependants where the mine worker has passed away) are compensated. These beneficiaries are front and centre in all that the Trust does.

African Rainbow Minerals, Anglo American South Africa, AngloGold Ashanti, Harmony Gold, Sibanye-Stillwater, and South Deep Joint Venture are Founders of the Trust. [f](#)

An evaluation of occupational health risk assessment methodologies from South African enterprises: noise risk assessment field study

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Keywords

risk matrix, risk identification, risk analysis, risk evaluation, risk ranking

How to cite this paper

Rikhotso O, Morodi TJ, Masekameni DM. An evaluation of occupational health risk assessment methodologies from South African enterprises: noise risk assessment field study. *Occup Health Southern Afr*. 2023; 29(2):65-74.

ABSTRACT

Background: The South African occupational health and safety regulations, prescribing risk assessments be conducted by employers, are non-prescriptive with regard to the tools and techniques to be used. Consequently, companies freely adopt the numerous available tools and techniques from which risk management decisions are derived. Thus, risk management, ensuing from the results derived from these tools and techniques, is likely to vary from company to company.

Objective: The objective of the study was to evaluate risk assessment processes and methodologies that are used and recorded in noise risk assessment reports, in four manufacturing companies.

Methods: This was a case study, whereby risk assessment records were obtained from four South African companies with different operational units, from the manufacturing and utilities sectors.

Results: There were inter- and intra-company variations in the processes related to the legal context in which the risk assessments were conducted, the risk assessment tools and techniques used, the risk criteria definitions, the statements about the effectiveness of controls in use, and the risk evaluation outcomes. Inter- and intra-company variations in risk rankings and risk prioritisation outcomes were also observed – a consequence of the risk perceptions of the assessors assigning a risk level to the noise hazard. In some instances, the adopted risk assessment tools and techniques categorised the risk from noise that was at or above regulated health and safety standards as 'insignificant', which those companies used as justification for taking no further measures to eliminate or reduce the risk.

Conclusion: The use of different risk assessment processes, tools and techniques resulted in some facilities categorising noise as an insignificant hazard, which may contribute to high noise emissions and uncontrolled exposures.

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Hairdressers in Johannesburg: knowledge, attitudes and practices regarding occupational health

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Keywords

hair products, chemical hazards, PPE, hairdressing

How to cite this paper

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ABSTRACT

Introduction: Hairdressers are exposed to hazardous chemicals in haircare products, which can cause adverse respiratory, skin, and reproductive effects. The incidence of these effects can be reduced with good occupational health and safety (OHS) knowledge, attitudes, and practices (KAP).

Objective: The objective of the study was to assess Johannesburg hairdressers' knowledge, attitudes, and practices towards occupational health and safety.

Methods: Three hundred and eighty-three hairdressers were recruited into this cross-sectional study. They were categorised into employees/wage earners (earning a salary or wage, n = 151), or business owners (self-employed, n = 232). Data were collected using an interviewer-administered questionnaire. The data were analysed using Statistical Package for Social Sciences (SPSS) version 26. Frequency tables were generated and chi-square tests were used to test differences between KAP amongst business owners and wage earners.

Results: Most of the study participant were female (n = 237, 61.9%). A higher proportion of business owners than wage earners knew that hairdressing was hazardous to their health, in general (n = 44, 29.1% and n = 120, 51.7%, respectively), and with regard to specific health risks such as asthma, cancer, and skin diseases. However, more of the wage earners than the business owners had good attitudes towards the wearing of personal protective equipment (PPE) such as gloves, (n = 143, 94.7% and n = 210, 90.5%, respectively). Overall, wage earners practised better OHS than business owners, e.g. 67.5% (n = 102) and 55.2% (n = 128) reported that they wore gloves, respectively.

Conclusion: Wage earners had poorer OHS knowledge than those who owned or operated hairdressing salons. Both had good attitudes towards OHS, but self-employed hairdressers had poorer OHS practices. Training, including workshops and seminars, is needed to improve KAP regarding OHS amongst all hairdressers, regardless of their employment status.

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Respirable crystalline silica dust exposure and regulated occupational respiratory diseases in the Zambian copper mining sector: a review and recommendations

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Keywords

silica exposure, occupational diseases, mining, health programme

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ABSTRACT

Background: Exposure to respirable dust is widespread in the mining industry. One of the significant components in dust is respirable crystalline silica (RCS), which causes pulmonary silicosis; RCS exposure is also associated with tuberculosis. The health effects of exposure to RCS in Zambian copper miners are unclear.

Objectives: This review describes RCS exposure, associated occupational respiratory diseases, and existing dust exposure management programmes in the Zambian copper mining industry. Research gaps are also identified.

Methods: Online search engines (Google Scholar, PubMed, and Web of Science) were used to identify relevant published literature, and governmental databases and websites were searched for information.

Results: Only two studies have reported RCS dust exposure in the Zambian copper mining industry, and seven studies describe related diseases. The Zambian Ministry of Health reports on only two occupational respiratory diseases: silicosis and tuberculosis (TB). Zambia does not have an occupational health policy or programmes that protect workers in dusty operations from exposure to RCS.

Conclusion: Little is known about exposure to RCS and related occupational diseases in the Zambian copper mining industry. The absence of legislative guidelines for an RCS monitoring programme places copper miners at risk of developing respiratory diseases because of high and uncontrolled RCS levels. An RCS management programme should be developed and implemented to investigate the exposure of miners to RCS, and to promote the implementation of control measures.

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African trypanosomiasis: lessons for occupational health practitioners

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Exposure science

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The role of occupational health and safety and the private sector in pandemic prevention: the One Health approach in Africa

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BACKGROUND

The global population, according to Worldometer, reached 8 billion in November 2022, and is expected to reach 9 billion in 2037.¹ In 2020, Africa had 1.34 billion people – about 17.2% of the global population.¹ Eastern and western Africa represent about 59% of the African population. The International Labour Organization (ILO) estimates that there are approximately 3.3 billion working people worldwide.²

More than a billion individuals work closely with animals worldwide. Over 60% of human disease pathogens originate from domestic animals and wildlife, 75% of emerging human infectious diseases originate from animals, and 80% of bioterrorism concerns have their origin in animals.³ Thus, humans are vulnerable to physical, emotional, and social wellbeing risks. Humans and animals share exposures to biological, chemical, physical, and psychosocial environmental hazards. Animals expose humans to zoonotic infections and, in turn, humans expose animals to reverse zoonoses such as tuberculosis and influenza.⁴ Consideration must be given to the person, the animal, and the workplace environment to improve occupational health and safety (OHS) for workers, their families, and the public in general.

Definition of occupational health and safety

The ILO defines OHS as “the science of the anticipation, recognition, evaluation, and control of hazards arising in or from the workplace that could impair the health and well-being of workers, considering the possible impact on the surrounding communities and the general environment.”⁵ It is important to note that the OHS discipline protects workers, visitors, communities, and the environment, and requires a multi-disciplinary approach. It is misleading to define OHS as a field of public health in which trends in illnesses and injuries in the worker population are studied, and regulations and strategies to prevent them are proposed and implemented.⁶ This second definition assumes that public health is the entry point and ignores the fact that OHS is a broad discipline, emanating from various disciplines such as engineering, chemical, industrial hygiene, etc., which, at times, are not connected to public health. Under the United Nations, public health is a mandate of the World Health Organization (WHO), and the ILO leads OHS. At the country level, ministries responsible for health take leadership on public health issues, while the ministries responsible for labour assume leadership in OHS matters. At the industry level, the private sector promotes and implements OHS measures more than the public sector, due to the need to comply with OHS standards. Consequently, for an effective workplace pandemic response, and recognising the

importance of integrating OHS in this aspiration, the private sector should be included in all OHS programmes and initiatives, as this is where good practical OHS skills – essential to protect workers, the community, and the environment – are located.

ONE HEALTH

The Centers for Disease Control and Prevention (CDC) defines One Health as “a collaborative, multisectoral, and transdisciplinary approach – working at the local, regional, national, and global levels – with the goal of achieving optimal health outcomes recognising the interconnection between people, animals, plants, and their shared environment.”⁷ The One Health definition recognises the importance of multi-sectoral and transdisciplinary cooperation to prevent and control pandemics.

Challenges of implementing One Health Regional coherent policies and strategies

Recently (in May 2023), the African Union Development Agency-New Partnership for Africa’s Development (AUDA-NEPAD) conducted a literature review, and found that 70% of African countries fell below the average of 15 pieces of OHS legislation compared to Canada, which has more than 800 OHS-related pieces of legislation.⁸ Some African countries have set occupational exposure limits (OELs), such as South Africa, Zimbabwe, Kenya, Namibia, and Lesotho. However, some countries have unofficially adopted international OELs. Only South Africa has published a list of biological exposure indices (BEIs). Inadequate policy reforms limit the advancement of internal exposure monitoring, which is essential for biological monitoring of exposure and of effect. The lack of internal exposure assessments weakens exposure control programmes for chemical and physical stressors.⁸ Moreover, in 2023, the ILO reported that only 21 countries had developed a Decent Work Country Programme (DWCP),⁹ 12 of which have expired. As of February 2023, Africa has 19 active DWCPs, and another 11 are being drafted.⁹ If we are to be effective in combating any future pandemics, we need to prepare both public and private sector workplaces and develop action plans to prevent and mitigate disease transmissions – as part of the business continuity plan and according to the results of risk assessments and epidemiological situational analysis reports.

Appetite for integration-willingness and knowledge of the importance of integration

There is a lack of good research and/or data on the contribution of economically active people to the outbreak of diseases. The unavailability of data contributes to the emerging and re-emerging of

diseases. There is also limited funding to collect and analyse data for research about how commuting workers contribute to pandemics. However, the COVID-19 pandemic revealed many disease-spreading platforms, such as public and private transportation, including private lift clubs. When disease trends are not tracked and reported, the world loses the battle against emerging and re-emerging infectious diseases that have the potential to turn into pandemics.

OPPORTUNITIES AND KEY AREAS THAT REQUIRE INTEGRATION

One-stop border posts

The one-stop border post (OSBP) concept refers to the legal and institutional framework, facilities, and associated procedures that enable goods, people, and vehicles to stop in a single facility, where they follow controls, in accordance with regional and national laws, to exit one country and enter another. The process drastically reduces the time taken to travel across the border (from 4–5 days to a few hours–3 days),¹⁰ increases trade, and reduces congestion in ports of entry. Countries may realise the economies of scale by using a single facility, which strengthens cross-border surveillance systems, promotes joint cross-border management systems, and reduces unnecessary congestions and contact times. This is a perfect model for reducing or curbing cross-border diseases.

Mental health

Mental health preparedness and response during and after disease outbreaks are integral to health emergency preparedness, response, and resilience (HEPR). Most of the countries that participated in the survey (n = 116, 89%) reported that the mental health and psychosocial support (MHPSS) response was included in their national COVID-19 response plans. However, only 17% of these countries have ensured funding for this. African regions have the highest percentage of countries reporting MHPSS integration with no additional funds for this activity.¹¹ In Africa, 64% of countries lack mental health legislation or have legislation that is outdated and fails to adequately promote the rights of people with mental disabilities.¹² Nigeria recently enacted a law on mental health, similar to the South African Mental Health Care Act. The law promotes a more organised and structural process for managing mental health in the country, allows for the creation of a Department of Mental Health Services in the Federal Ministry of Health; and makes provision for a Mental Health Fund. Mental health laws ensure protection for those with mental health conditions against discrimination, regarding housing, employment, and medical and social services.¹³ Any pandemic requires a public-private partnership that leverages and adapts practices to promote essential elements that foster wellbeing before, during, and after the disaster.¹⁴

Private sector engagement

In workplaces, the diversity of jobs held by migrants, the rapid expansion of travel for business and pleasure, and the increasing distances travelled to and from work accelerate the spread of infectious diseases. It is anticipated that these population movements will persist, driven by economically active citizens. Therefore, multi-sectoral, multi-disciplinary, and transdisciplinary approaches to disease prevention and control should be adopted; the multi-sectoral approach should include the private sector.

By March 2022, the South African mining industry's (SAMI's) COVID-19 vaccination rate was higher than 77%, compared to 37%, 12%, and 57.5% for the general South African, African, and global vaccination coverage, respectively.¹⁵ The chambers of mines, trade

and commerce in southern African countries are critical for coordinating national-level private sector interests, as most mining and non-mining companies and contractors are affiliated with these institutions. The national chambers of mines are represented regionally by the Mining Industry Association of Southern Africa (MIASA). The business chambers and business councils are critical platforms for reaching mining and non-mining companies, to advocate for and improve emergency prevention, preparedness, and responses to disease outbreaks.

CONCLUSION

The AUDA-NEPAD, the African Union-Interafrican Bureau for Animal Resources (AU-IBAR), and the African Union-Pan African Veterinary Vaccine Centre (AU-PANVAC), in partnership with the Food and Agricultural Organization (FAO), the WHO, and AU Regional Economic Communities (RECs), joined forces to implement the One Health approach in pandemic prevention, preparedness, and response.

This is a multi-sectoral and transdisciplinary project using an integrated One Health approach, recognising the role of animals, humans, and the environment in spreading infectious diseases. The project has three components, viz. i) strengthening regional surveillance systems, ii) strengthening regional laboratory systems, and iii) developing regional and national capacity in and beyond the current One Health setting. The partnership recognises the role of the private sector in pandemic prevention, preparedness, and response, taking lessons from COVID-19, where workers comprise the most tested and vaccinated population in the world. Although most of the global workforce is employed in the public sector,¹⁶ the private sector champions OHS. Capacitating the private sector and its OHS experts will play a major role in curbing future pandemics. Civil society organisations and communities will be greatly capacitated as key partners in prevention, preparedness, and response.

ACKNOWLEDGEMENTS

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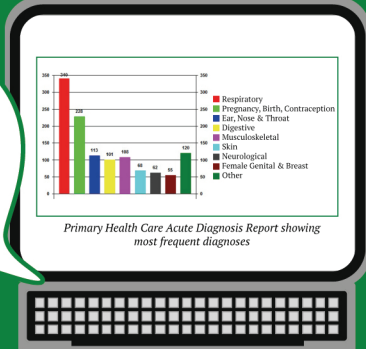


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OSHAfrica commemoration of World Day for Safety and Health at Work, 28 April 2023

Thuthula Balfour: Vice President of OSHAfrica; Head of Health, Minerals Council South Africa
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This paper was presented at the virtual commemoration of the World Day for Safety and Health at Work.

BACKGROUND AND HISTORY

The World Day for Safety and Health at Work (WDSHW) was initiated by the International Labour Organization (ILO) in 2003 at the request of trade union movements. This day is set aside to promote the prevention of occupational accidents and diseases, globally. It is an awareness-raising campaign intended to focus international attention on the magnitude of the problem and on how promoting and creating a safety and health culture can help reduce the number of work-related deaths and injuries. It is a tripartite commemoration/celebration for trade unions, employers' organisations, and government representatives.

The theme for WDSHW 2023 was, *A safe and healthy working environment is a fundamental principle and right at work*. This was the first time that safety and health were celebrated as fundamental rights. The theme arose from a decision of the International Labour Conference (ILC), in June 2022, to include 'a safe and healthy working environment' in the ILO's framework of fundamental principles and rights at work. The 2023 celebration provided an ideal opportunity for safety and health practitioners to ensure that safety and health receive the requisite attention to improve employees' wellbeing.

In 1998, the 86th Session of the International Labour Conference adopted the 'ILO Declaration on Fundamental Principles and Rights at Work' with the eight conventions. The declaration covered freedom of association and the effective right to collective bargaining; the elimination of all forms of forced and compulsory labour; the effective abolition of child labour; and the elimination

of discrimination in respect of employment and occupation. On 11 June 2022, the ILC amended this declaration by adding a safe and healthy working environment as a fifth principle and right.

The Declaration on Fundamental Principles and Rights contains the core principles that ILO member states are required to respect, by virtue of their membership, even if they have not ratified the ILO's conventions in which they are expressed. This means that all 10 conventions must be implemented by ILO members, regardless of ratification. The fundamental rights conventions are presented in Figure 1.

ILO CONVENTIONS

The ILO conventions are divided into three categories, viz. governance, technical, and fundamental conventions.² There are four governance conventions that are important for the functioning of the international labour standards. Examples of these are Convention No. 81 of 1947 on Labour Inspection, and Convention No. 122 of 1964 on Employment Policy. The ILO also has numerous technical conventions, covering a range of subjects, which provide technical guidance. Examples are Convention No.1 of 1919 on Hours of Work (Industry), and Convention No.3 of 1919 on Maternity Protection. The earliest fundamental convention was Convention No. 29 of 1930 (Forced Labour Convention). Convention No. 105 of 1957 (Abolition of Forced Labour Convention) cancelled some parts of the Forced Labour Convention of 1930.

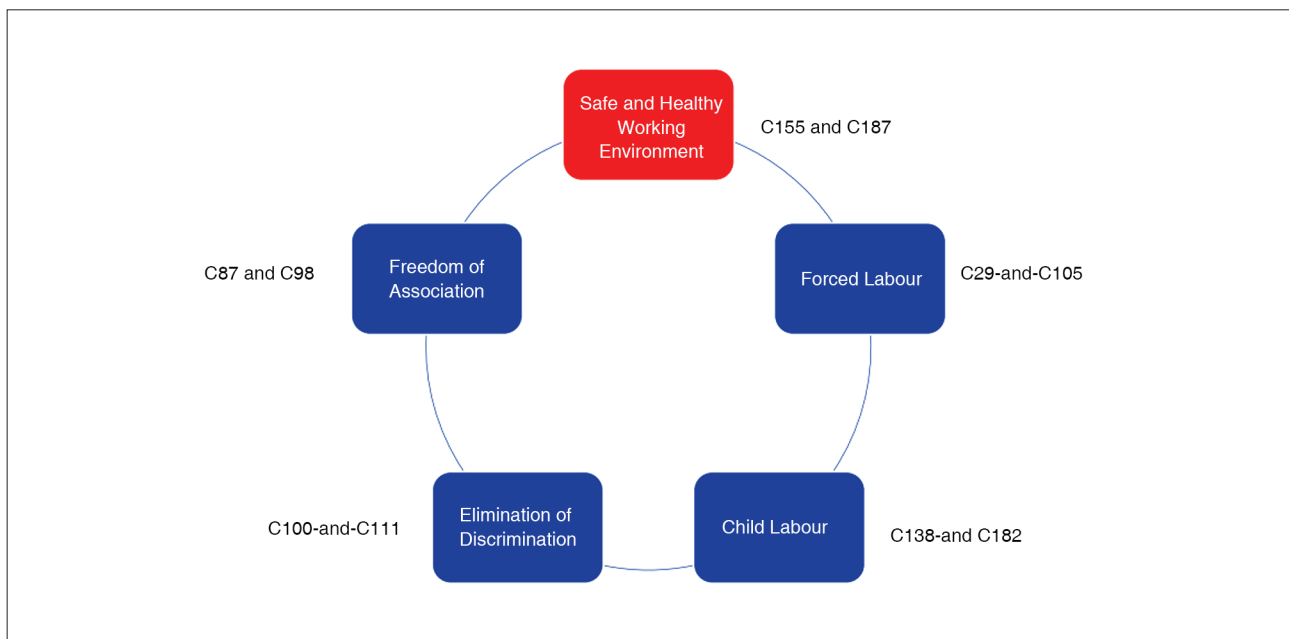


Figure 1. ILO fundamental rights and the associated conventions¹

New conventions on occupational safety and health

In 2022, the Occupational Safety and Health Convention No.155 of 1981² and the Promotional Framework for Occupational Safety and Health Convention No.187 of 2006³ became fundamental conventions.

Occupational Safety and Health Convention No. 155 (1981)

This convention introduced a policy approach to occupational safety and health (OSH). It emphasised the need to consider OSH as a matter of national concern. In addition to defining the objectives and basic principles of a national policy, the convention also defines the actions required at both national and enterprise levels.

Promotional Framework for Occupational Safety and Health Convention No. 187 (2006)

Convention No.187 aims to promote a preventive safety and health culture and to progressively achieve a safe and healthy working environment. It emphasises the need to ensure that priority is given to OSH in national agendas, and to foster political commitments in a tripartite context for the improvement of OSH. It defines the elements and functions of national policies, systems, and programmes, and discusses the monitoring, evaluation, and improvement of national OSH systems.

Ratification of Convention No. 155 and Convention No. 187

With the elevation of the two occupational safety and health conventions, it is worth noting how many countries in Africa have ratified the conventions (Table 1). Conventions No. 155 and No.187 have been ratified by only 18 (33.3%) and 17 (31.5%) African countries, respectively. Nine countries (16.7%) have ratified both conventions.

STATE OF THE OSH RESPONSE IN AFRICA

It is noteworthy to see how African countries have responded to the implementation of Conventions 155 and 187 (Table 1). In 2023, the ILO published a booklet titled, *Implementing a safe and healthy environment: where are we now?*⁶ The booklet provides information on the global implementation status of some of the key provisions contained in Conventions 155 and 187. Some of the key elements analysed were the existence of a national authority responsible for OSH and a national tripartite body on OSH; the inclusion of key provisions, e.g. workers' right to remove themselves from dangerous work situations, and the requirement to establish joint OSH committees at the workplace level; the development of a national policy and national programme on

OSH; and the establishment of a national recording and notification system for occupational accidents and diseases. This was a desktop study on a sample of countries representing low- to high-income countries and according to regions. Some findings from the paper are summarised below.

National authority responsible for OSH

Of the sub-Saharan African countries sampled, all had OSH housed in departments of labour.

National tripartite body for OSH

The proportion of members with tripartite OSH bodies was 70% in low-income countries, compared to 85% in high-income countries. Morocco was a case study as it has established the Council of Occupational Medicine and Prevention of Professional Risks, which is set up as a consultative entity. It is responsible for all matters related to OSH and the prevention of occupational accidents and diseases, and is organised as a tripartite and intergovernmental structure.

Right to remove oneself from dangerous work

Provisions in law for the right to remove oneself from dangerous work were present in 54% of countries in Africa compared to 94% in Europe and Central Asia.

Joint OSH committee at workplace

Africa did well and performed best with 80% of countries having joint OSH committees at the workplace. Djibouti was a case study as a health and safety committee must be created in all industrial enterprises, buildings, and public services employing at least 50 workers, including those with temporary contracts. Zambia was also a case study, as an employer of 10 or more persons at any workplace must establish a health and safety committee, consisting of an equal number of members, with at least two representing the employer and two representing the employees.

National OSH policy

Few African countries (39%) had a national OSH policy, compared to 57% in Europe and Central Asia. However, Zimbabwe was notable as it introduced its National Occupational Safety and Health Policy in August 2014, with a vision to prevent occupational accidents, injuries, diseases, and fatalities in the country.

National programme on OSH

Only 24% of countries in Africa had national programmes, compared to 47% in Europe and Central Asia.

Table 1. African countries that have ratified Conventions No. 155 and No. 187

Ratification of C155		Ratification of C187	
Algeria	Nigeria	Burkina Faso	Rwanda
Cameroon	Rwanda	Cote d'Ivoire	Senegal
Cote d'Ivoire	Senegal	Guinea	Sierra Leone
Ethiopia	Seychelles	Malawi	Somalia
Gabon	Sierra Leone	Mauritius	Togo
Lesotho	Somalia	Morocco	Tunisia
Malawi	South Africa	Niger	Zambia
Mauritius	Zambia	Nigeria	
Niger	Zimbabwe		

Country names written in bold have ratified both conventions^{4,5}

NATIONAL NOTIFICATION OF ACCIDENTS AND DISEASES

While 90% of the 187 ILO members have established a reporting system, only 41% of these had provided data to the ILO in the previous five years. In those with no recording system, 38% were low-income countries, 31% were lower-middle-income countries, 25% were upper-middle-income countries, and 6% were high-income countries. There was, thus, a strong correlation between income status of countries and reporting, which could be due to resources available in countries to implement these systems.

IMPLEMENTATION OF CONVENTIONS

The practical implementation of Conventions No. 155 and No. 187 is discussed, using examples from South Africa, in sectors covered by the Mine Health and Safety Act No. 29 of 1996 (MHSA). Both Conventions No. 155 and No.187 describe a framework to improve health and safety at work based on the complementary roles played by governments, employers and workers. The conventions emphasise the importance of employer and worker participation, through express provisions on consultation and cooperation in decision-making and implementation processes. This was displayed during the consultation process for the MHSA Amendment Bill of 2022, which included extensive tripartite consultations at the Mine Health and Safety Council (MHSC) and the National Economic Development and Labour Council (Nedlac) – a national statutory body governed and mandated by the National Economic Development and Labour Council Act No. 35 of 1994.

Convention No.155 provides for the protection of workers and their representatives from undue disciplinary measures because of lawful actions taken in accordance with the national OSH policy. This is included in the MHSA as the right to refuse dangerous work. Organised labour is very vocal at all forums about the need for employers to recognise and promote this right. Some mining companies incentivise employees to exercise this right as it leads to fewer injuries at work.

According to Convention No. 187, the national OSH system shall include an authority or body, or authorities or bodies, responsible for occupational safety and health, designated in accordance with national law and practice. The MHSA makes provision for the establishment of the MHSC, which is a tripartite entity that advises the Minister of Mineral Resources on all matters relating to safety and health in the industry.

Convention No. 155 provides for the establishment and application of procedures for the notification of occupational accidents and diseases, by employers and, when appropriate, insurance institutions and others directly concerned, and the production of annual statistics on occupational accidents and diseases. The Department of Mineral Resources and Energy (DMRE) has, over the years, regulated the submission of occupational safety and health data in the form of the South African Mines Reportable Accidents Statistics System (SAMRASS) for safety, and annual medical reports and health incident reports for occupational health. This enables the department to produce credible and accurate data on the state of safety and health in the mining industry.

FOCUS AREAS FOR AFRICA

Based chiefly on the outcomes of the ILO study and recognising the challenges on the continent, the following are areas of focus for Africa and OSHAfrica:

- Ratification of Conventions No. 155 and No. 187
- Legalising the right to remove oneself from dangerous work
- Developing national OSH policies
- Establishing national programmes on OSH
- Recording and notification of accidents and diseases
- Integration across departments and between prevention and compensation
- Developing policies for small, micro-enterprises, and the informal sector

CONCLUSION

Taking everything into account, the following can be concluded:

- The recognition of occupational safety and health is a major achievement and should be utilised to catalyse activities to promote safety and health.
- Africa needs to strengthen its response to meet the requirements of Conventions No. 155 and No. 187.
- Best practice (case studies) exist in Africa and countries must learn from each other.
- Through OSHAfrica and relevant partners, we need to raise the bar on our dialogues and tracking of our progress towards ensuring that occupational safety and health are lived as fundamental rights on the continent.

ACKNOWLEDGEMENTS

I humbly acknowledge Simphiwe Mabhele, a specialist at the ILO, for providing information on this topic.

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The logo for the British Occupational Hygiene Society (BOHS) features the letters 'BOHS' in a bold, blue, sans-serif font. The letter 'O' is stylized with a white circle inside it.

British Occupational
Hygiene Society



IOHA



OCCUPATIONAL
HYGIENE SOCIETY
OF IRELAND

13th IOHA International Scientific Conference

Dublin, Ireland
June 2024

The Occupational Hygiene Society of Ireland (OHSI) and the British Occupational Hygiene Society (BOHS) are privileged to jointly host this conference and to contribute to its successful outcome.

The conference theme has been confirmed as - 'Protecting workers from health hazards: Advancing in this changing world'.

The conference aims to promote occupational hygiene and worker health protection by the minimisation of worker exposure to hazardous agents globally through plenary sessions, keynote lectures, parallel talks, workshops, poster presentations and

professional development as well as networking opportunities and social functions.

A strong Global media campaign will publicise the main causes of occupational disease throughout the conference.

More information including venue, dates and abstract submission arrangements will be announced very soon. Please mark your diaries for June 2024 in Dublin, Ireland!

Edited by Dr Thomas P Fuller

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XXII Symposium of Polish Association of Industrial Hygienists – Current Issues in Industrial Hygiene

Agnieszka Klimecka, Joanna Jurewicz

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Each year, the Polish Association of Industrial Hygienists (PTHP) organises a scientific and training symposium. From 14 to 16 September 2022 a symposium, with the theme *Current Issues in Industrial Hygiene*, took place in Lodz, Poland. The conference topics focused on the understanding and prevention of negative health effects caused by exposure to harmful factors in the work environment. Conference attendees included industrial hygienists, employees of universities and research institutes, control authorities, occupational medicine service providers, laboratory professionals, and occupational health and safety specialists. Participants had the opportunity to take part in nine thematic sessions:

1. Amendment of EU rules and policies on substances that are toxic to reproductive processes, carcinogenic, or mutagenic
2. Exposure to ionising radiation
3. Selected chemical, dust, physical and biological hazards in the work environment
4. Chemical safety
5. New forms of learning and working as a challenge for students, employees, and employers
6. Methodologies for the assessment of work environments
7. Occupational hygiene and medicine for employees



8. Improving the effectiveness of personal respiratory protection in the light of new products and IT tools

9. Exposure to electromagnetic radiation from industrial equipment
Leading lectures were delivered by specialists in occupational hygiene and medicine.

There was also a poster discussion session that mainly focused on the development of new methods for evaluating various chemical compounds in the working environment.

Approximately 100 professionals participated in the conference. They had the opportunity to expand their knowledge and exchange experiences in the field of occupational hygiene. As the information presented during the symposium was positively accepted, the PTHP management is already planning the next symposium in 2023. 🌐

Growing the occupational hygiene workforce in New Zealand

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In New Zealand, deaths related to occupational health are estimated at 750–900 a year. In addition, there are an estimated 5 000–6 000 hospitalisations each year. To put this into perspective, a worker is 15 times more likely to die from a work-related disease than from a workplace accident.¹ To address this, WorkSafe New Zealand (the Government health and safety regulator) released a strategic plan for work-related health where, ultimately, fewer people should experience work-related ill-health.² Part of the strategic plan is to support building the capacity and capabilities of professional health and safety workforce groups, with occupational hygienists being the priority. This was the beginning of the Occupational Hygienist Workforce Development Project, which started in 2018.

This programme of work is jointly managed by New Zealand Occupational Health and Safety (NZOHS) and the Health and Safety Association of New Zealand (HASANZ), the umbrella organisation representing workplace health and safety professions, which aims to raise professional standards and connect businesses with trusted health and safety professionals.



There are two phases to the project. The first phase spanned the period 2018 to 2021. The second phase commenced in 2021 and will continue until 2024. The objectives of the project are:

- to grow the critical mass of health and safety professionals to ensure that more occupational hygienists are available to support New Zealand industries
- to enhance education pathways, thereby improving capabilities and ensuring that accurate, high-quality advice is given to employers
- to create opportunities for established occupational hygienists to continue their professional development, networks, and career aspirations.

In 2018, at the beginning of Phase 1, NZOHS had 85 members. By 2021, three years later, this number had increased by 48% to 126 (Figure 1). Buoyed by the success of Phase 1, an additional three years of funding was provided to continue the project by WorkSafe, New Zealand's primary workplace health and safety regulator. One year into Phase 2, there was already a 25% increase in membership, from 126 to 157 (Figure 1).

The activities in the project are broadly categorised as follows:

Grow the number of qualified and experienced occupational hygienists in New Zealand

- *Scholarships* – award and administer scholarships for candidates to obtain Master's degrees in occupational hygiene from an institution recognised by the International Occupational Hygiene Association (IOHA), or the International Certificate in Occupational Hygiene. Since 2018, 23 scholarships have been awarded.
- *Internship programme* – a summer pilot project recruited two business hosts and two interns; both interns secured full-time work with their hosts. The internship programme continues.
- *Mentoring* – there are currently nine mentor/mentee relationships underway; the aim is to increasing this to 20 per year.

Increase technical and specialist occupational hygiene capability


- *Specific technical training* – NZOHS delivered Occupational Hygiene Training Association (OHTA) modules to 199 students, from 2019 to 2022.
- *Training/trainer competency framework* – 15 NZOHS full and fellow members attended a 'Train the Trainer' course to improve the quality of trainers and training experience for the delivery of the OHTA modules.
- *Specialist training* – with limited access to specialised courses in New Zealand, NZOHS arranged courses for members in local exhaust ventilation (LEV), mining industry, and ethics. NZOHS also developed and runs the Commit2Fit (C2F) courses for training competent respirator-fit testers.
- *New Zealand occupational hygiene qualification* – NZOHS and HASANZ have been meeting with universities in New Zealand and Australia to discuss the establishment of a Master's level occupational hygiene course in New Zealand, which is currently underway.

Increase wider occupational hygiene knowledge and attract others into the profession

- *Co-profession core understanding* – each year, NZOHS delivers two Basic Principles in Occupational Hygiene (W201) courses, directed at other health and safety professionals to increase their understanding of occupational hygiene.
- *Attraction* – to explain the role and value of occupational hygienists to other disciplines, NZOHS and HASANZ developed a career pathway document and conference collateral; increased NZOHS web presence through a rebranded website, social media, external presentations, and electronic newsletters; added occupational hygiene to the Government priority careers list; and listed occupational hygiene as a scarce skill shortage for New Zealand work visas, meaning it is now easier to get a work visa if you have those skills.
- *Improving the profile of occupational hygiene* – NZOHS delivered presentations to other health and safety professional bodies, and is actively engaging with other HASANZ member associations. NZOHS is holding its annual conference in May 2023.
- *Strategic planning, systems, and procedures* – there are ongoing improvements to our systems and processes, with a view to aligning them to ISO 17024:2012 and, possibly, a future IOHA National Accreditation Recognition certification scheme.

There has been a tremendous effort in the last five years to grow the occupational hygiene workforce in New Zealand. With significant gains made already and further support for growth, the future of the occupational hygiene profession in New Zealand is looking good.

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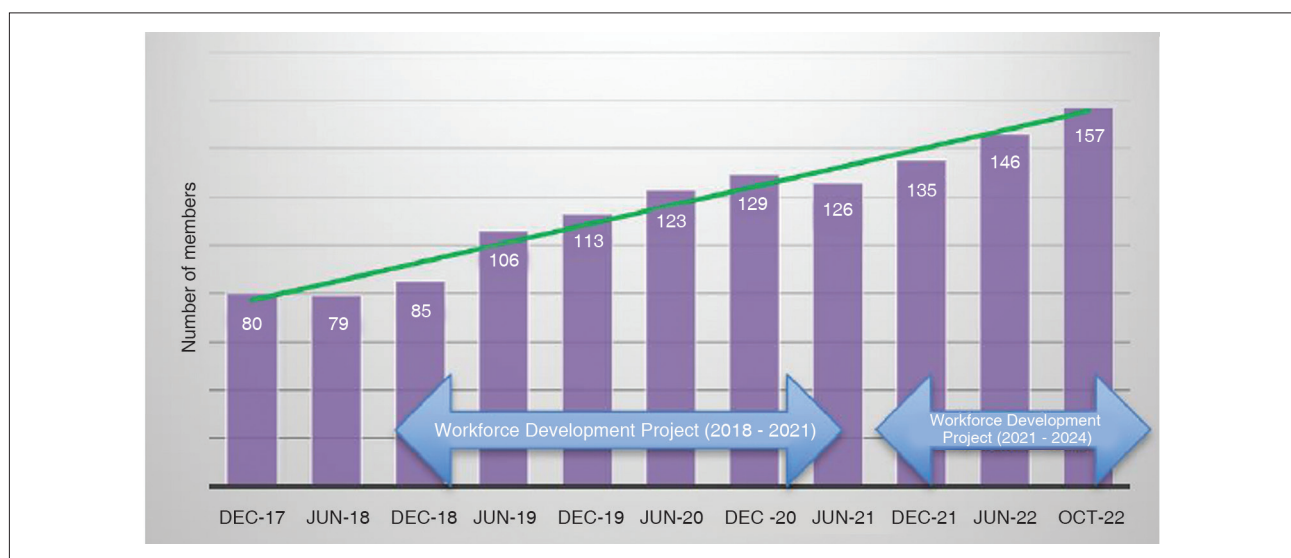


Figure 1. NZOHS membership, December 2017–October 2022

SOFHYT cooperates with other international organisations to increase occupational hygiene awareness

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The French Society of Occupational Hygienists (SOFHYT) has been collaborating with Workplace Health Without Borders (WHWB) to organise health and safety training for French-speaking students in low- and medium-income countries. WHWB's goal is to provide workers with occupational health technical assistance, training, and skills development to help them increase capacity in occupational hygiene and local infrastructure, to manage and improve health conditions in their workplaces.

In 2020, WHWB approached national industrial hygiene associations to extend their offer of training programmes to non-English-speaking countries. The SOFHYT was quick to embrace the initiative.

The SOFHYT members have translated into French the Occupational Health and Safety Awareness Course, originally developed by the Occupational Hygiene Association (OHTA). Tutorials were recorded and study material was prepared in French. During the last few years, the material was improved and updated, and the training now includes pre-recorded e-learning modules on Google Classroom™, as well as sessions with instructors. The training is conducted entirely online and in French. At the end of the seven-week course, participants are able to recognise common workplace hazards, implement the hierarchy of controls, and recognise when to seek additional technical assistance.

Three training cycles have already been completed. Approximately 50 students have completed the programme to date. Attendees have come mainly from Senegal, Burkina Faso, Democratic Republic of Congo, and the Ivory Coast. These countries have high prevalence rates of occupational injuries.¹ A paradigm shift will unavoidably require the involvement of many actors over multiple years, but initiatives like those of WHWB/SOFHYT may plant the seed.




Feedback from students has been enthusiastic and most ask for more in-depth training. This health and safety awareness training will be repeated regularly in 2023. In parallel to this initiative, the SOFHYT also proposed an e-learning training programme on the Fundamentals of Occupational Hygiene, for French participants. This module is based on the OHTA W201 programme, and has been summarised and presented in English by Steven Verpaele from the Belgian Society of Occupational Hygiene (BSOH) and the Belgian Centre for Occupational Hygiene (BeCOH).

Several SOFHYT members translated this module into French during the summer. The training was presented via Microsoft Teams for three days, to 10 students. Participants included new occupational hygienists, environmental health and safety officers, occupational physicians, and toxicologists. All were eager to know more about occupational hygiene. This first session was considered a success, and feedback from participants was very positive.

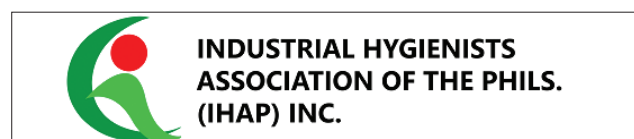
In 2023, the SOFHYT is planning a new training programme on the basics of occupational hygiene. This may be more tailored towards France with references to French regulations practices.

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Upcoming annual Asian Network Occupational Hygiene Conference

The 2023 annual Asian Network Occupational Hygiene (ANOH) Conference will be held at the Acacia Hotel, Alabang, Metro Manila, Philippines from 26 to 30 August 2023. The conference is being organised by the Industrial Hygienist Association of the Philippines Inc. (IHAP) in conjunction with the ANOH. The title of the conference is *Collaborate, innovate, adapt for the future of industrial hygiene in Asia*. The conference will include presentations covering a wide variety of technical issues in industrial/occupational hygiene.



The programme will include:

- Professional courses: 26 and 27 August 2023
- Symposium – keynote speakers, concurrent sessions, trade show, and gala dinner: 28– 30 August 2023 

The importance of medical reports in the COID claim adjudication process

The Compensation for Occupational Injuries and Diseases Act (COID Act), Act No.130 of 1993 as amended, provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for the death resulting from such injuries or diseases; and for matters connected therewith on a 'no fault' basis.

For benefits to be provided under the COID Act, each claim must be adjudicated and processed in line with the Rand Mutual Assurance (RMA) process. Adjudication is the process whereby the decision is taken to accept or reject liability for paying benefits, following an accident or occupational disease. This is taken in compliance with Section 45 of the COID Act No. 130 of 1993 as amended, which requires that Rand Mutual Assurance (RMA) consider every claim brought to its attention and make a liability decision on each case.

The Act defines an accident as:

- An incident or occurrence arising out of, and in the course of, an employee's employment; and
- Resulting in a personal injury, illness, occupational disease, or the death of the employee.

Claims must be proven by varied materials of evidence, including but not limited to medical evidence, and evidence that the injury was caused by an accident arising of, and in the course of, an employees' employment.

In occupational diseases, acceptable evidence must be provided to RMA that the employee has the occupational disease and that the substances or

hazards that caused the occupational disease are present in the workplace.

For liability to be accepted based on a sound clinical diagnosis, the following set of medical criteria must be satisfied in all cases:

Causality

This requires that each of the following criteria is met to a reasonable degree of medical probability:

- A causal event took place.
- The person who experienced the event has the condition (injury/impairment/disease).
- The event could cause the condition.
- The event caused or materially contributed to the condition within medical probability.

Chronology

The series of events leading to the injury or occupational disease must have a chronological sequence that justifies the link to the cause. In essence, the cause must precede the effect.

Biological plausibility

From what is known of toxicology, chemistry, physical properties, or other attributes of the studied risk or hazard, does it make biological sense to suggest that exposure leads to the disease?

Employees are entitled to their claims being considered, provided that the employer and medical professionals have followed the prescribed processes for the submission of the required documents



Photograph: courtesy of RMA



Photograph: courtesy of RMA

within specified time periods. Claims for occupational injuries and diseases must be reported as soon as possible. The Act states that injuries need to be reported within seven (7) days of the accident, whereas claims for occupational diseases must be reported within fourteen (14) days of the diagnosis being made by the medical professional. The information contained in the claim forms and medical reports must be as accurate and complete as possible, to allow speedy adjudication and disbursement of benefits.

In terms of Section 74(3), the Commissioner may defer payment for medical aid provided to the beneficiary if, in the opinion of the Commissioner, any report submitted is not completed in a satisfactory manner. Medical professionals must ensure that medical reports submitted give pertinent professional and unbiased medical information, to assist RMA in arriving at a decision based on sound medical advice. Withholding critical medical information may jeopardise the employee's chance of fair compensation.

Medical service providers are required to submit progress medical reports with every consultation subsequent to the first medical report. Such reports must be furnished in the manner and at the time and intervals specified or prescribed, or as requested by the Commissioner from time to time (Section 74(2), COID Act). For employees on long-term in-hospital or outpatient treatment, a progress medical report must be provided at least monthly, until the claim has reached a point where no further improvement or deterioration is expected.

A final medical report must be submitted once the patient's condition reaches maximum medical improvement. The final medical report must indicate the level and extent of any objective residual functional or anatomical impairment that resulted from the injury or disease, and any future expected complications, if any. RMA provides additional adjunct reporting templates to final medical reports for different body systems to be completed, specifically for the level of amputation and range of motion, which is found on the RMA website.

Healthcare professionals are expected to make clinical diagnoses of occupational diseases, based on evidence-based medical guidelines, as guided by the medical scientific community and updated from time to time. Healthcare providers are required to provide an independent, unbiased assessment of the patient's medical condition, institute medically appropriate treatment based on agreed, expert consensus-driven protocols, and always observe the patient's best interest principle.

Overservicing, prolonged and unjustifiable hospital admissions, providing treatment that is not clinically justifiable, and instituting experimental, non-proven treatment modalities are not acceptable and ethical. Healthcare providers are always advised to adhere to established, well-researched, scientifically proven protocols when dealing with COID beneficiaries. Deviations from ethical best practices may lead to partial or total non-payment of invoices. [➔](#)

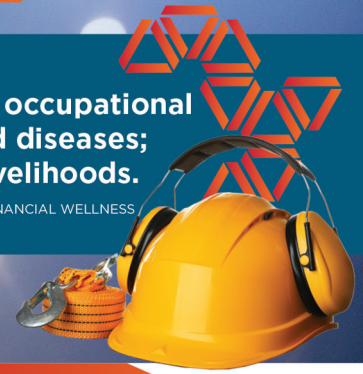
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ATS/ERS 2019 Spirometry Standards explained: how Vitalograph's new product range bring these to life

Just over a year ago, the American Thoracic Society (ATS) and European Respiratory Society (ERS) updated their spirometry standards after more than 15 years. The need for this update was due to advancements in technology and quality assurance approaches. In this article, we summarise the major changes in the guidelines and show how we have incorporated these recommendations into our new software (Spirotrac 6), desktop spirometer, and handheld spirometer.

What has changed?

The ATS/ERS have made 11 updates to their spirometry standards, including a new list of contraindications, adherence to ISO 26782 standards with a $\pm 2.5\%$ accuracy error, updated quality assurance procedures, and operator training and competency. There is also a focus on using devices that measure both expiration and inspiration, and updated manoeuvre acceptability and repeatability criteria. New requirements for uniform cues and operator feedback, withholding times for bronchodilators, and a grading system for spirometry quality were added. Standardised operator feedback options were developed for synoptic reporting.

Relative contraindications

The 2005 ATS/ERS spirometry standards did not include any contraindications. The new standards include a list of relative contraindications, based on available evidence. The previous contraindication of spirometry testing within one month of a myocardial infarction was changed to one week. Operators should consider the new list when deciding to perform spirometry, and determine if the benefits outweigh the risks for the patient.

Spirometer accuracy and quality assurance

One major change in the spirometry standards is the tighter accuracy requirement for spirometers, now at $\pm 2.5\%$. All spirometers must be validated according to the ISO 26782 standard, which includes new specifications for validation testing. Daily calibration verification using a 3 L syringe is required, regardless of the flow sensor type, and the use of a bacterial and viral filter during testing is recommended. The Fleisch pneumotachograph technology has been proven to meet these standards and is reliable and robust. Bacterial and viral filters are effective in preventing microbial transfer to the flow head, and calibration verification and recalibration are required daily.

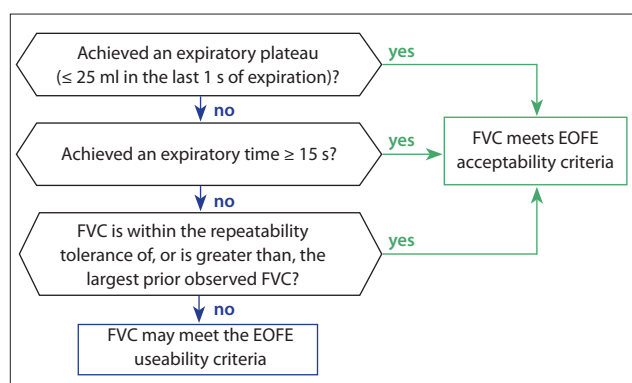


Figure 1. Flowchart outlining the EOFE acceptability for FVC

Inspiration as well as expiration

The updated guidelines for measuring forced vital capacity (FVC) focus on modern spirometers that measure both inspiratory and expiratory flow. The guidelines provide a detailed step-by-step procedure for performing FVC manoeuvres, including four distinct phases: maximal inspiration, a 'blast' of expiration, continued complete expiration for up to 15 seconds, and inspiration at maximal flow back to maximum lung volume. However, the inspiration to total lung capacity at the end is optional. There is no longer a minimum forced expiratory time (FET), and an acceptable FVC can be less than six seconds if it meets other criteria.

Forced expiratory volume in one second (FEV_1) and FVC are now evaluated individually for acceptability, and the concept of 'usable' measurements has been introduced. Figure 1 shows a flowchart outlining end of forced expiration (EOF) acceptability for FVC. The EOF is no longer the end of the recommended test procedure, and a maximal inspiration after the forced expiration is emphasised. A satisfactory EOF is required to ensure that a true FVC has been achieved, and the criteria for repeatability are straightforward. The aim is to achieve a minimum of three acceptable FEV_1 and FVC measurements, with the difference between the two largest acceptable values being less than or equal to 150 ml for patients older than 6 years, and less than or equal to 100 ml or 10% of the highest value for those aged 6 years or younger.

Our software simplifies the repeatability calculation by automatically displaying the difference between the two largest, acceptable FEV_1 and FVC values on the live testing screen (Figure 2). The new Spirotrac 6 software also includes a revamped analysis tab with detailed feedback during testing, including a traffic light classification scheme for meeting the minimum three acceptable measurements within the age-related criteria (Figure 3). The analysis tab also provides useful information such as a pictogram comparing the measured values to predicted values, and system interpretation based on the Global Initiative for Chronic Obstructive Lung Disease (GOLD) and ATS/ERS guidelines.

Operator feedback

The guidelines require spirometer manufacturers to provide feedback on test quality. We offer in-test prompts and post-test analysis to help identify acceptable and repeatable FEV_1 and FVC measurements, as well as the new EOF.

During testing, a green notification bar appears when a plateau or 15 seconds has been achieved. After the test, the software analyses the effort against criteria such as start of test, cough-free, and EOF.

● Repeatability: FVC: 0,04L (1,35%) FEV1: 0,05L (2,17%)			
	Test 1 11:08:33	Test 2 11:09:17	
FVC L	2.93	2.97	
FEV_1 L	2.25	2.30	

Figure 2. Repeatability feedback in Spirotrac 6

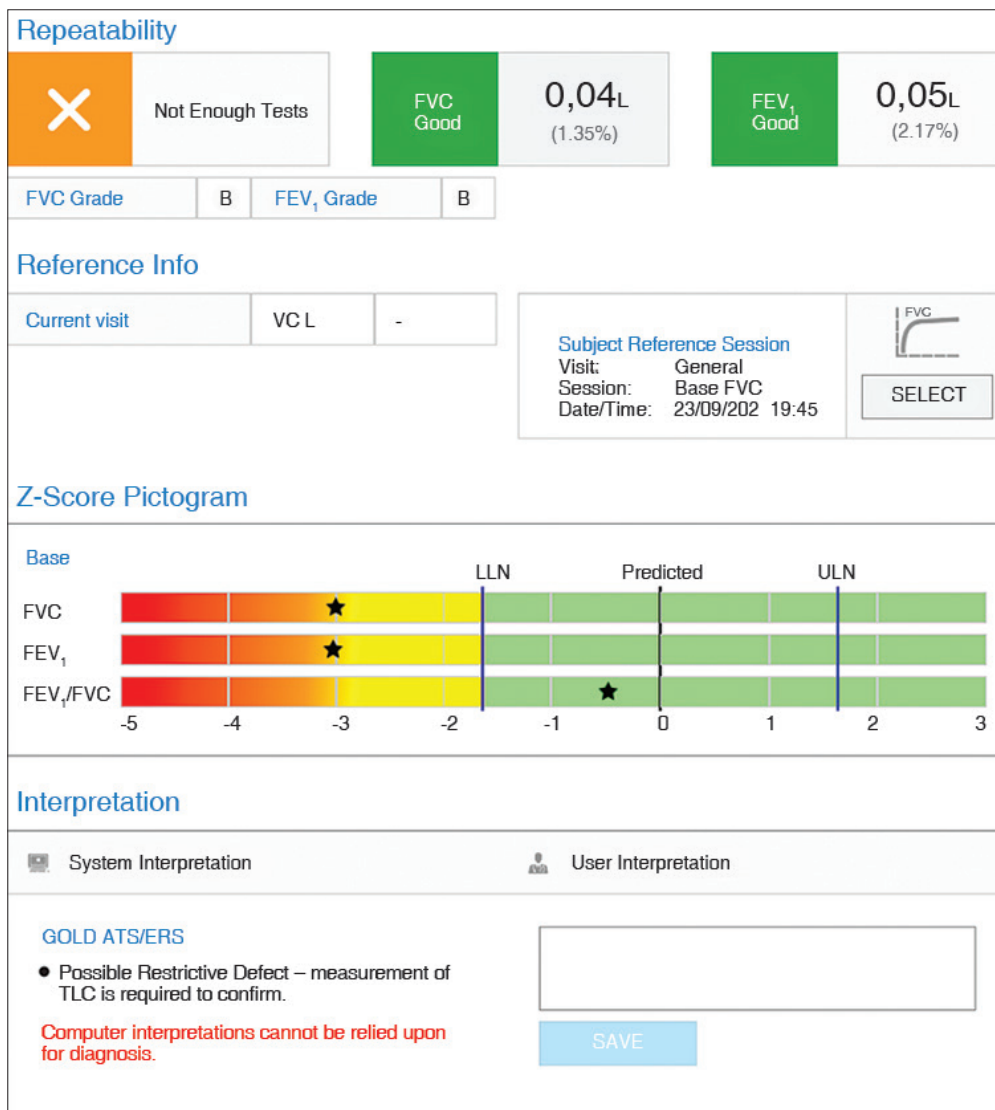


Figure 3. Spirotrac 6 analysis tab

A clear accept/usable/reject scheme is used to display a summary quality message, and feedback is provided under the 'guidance' button, explaining why a criterion was not met and offering suggestions for improving the technique. See Figures 4 and 5 for examples.

Operators can override the acceptability designation for individual FEV₁ and FVC measurements and the entire test on our new spirometers, giving them control over which results to report.

Bronchodilator responsiveness testing

Reversibility testing is now called bronchodilator responsiveness testing to avoid implying complete reversal of airway obstruction. It reports both percentage and absolute changes in FEV₁ and FVC compared to pre-bronchodilator values.

Grading

The ATS/ERS recommend using a grading system for FEV₁ and FVC to inform the interpreter about the level of confidence with the results that represent the best effort of the subject at the time. The repeatability between the two highest FEV₁ and FVC values is used to determine the grades A to F, with 'U' denoting 'usable'. Tables 1 and 2 show the grading system for age 6 years and younger, and for ages above 6.

Standardised operator comments and reporting

Operator comments are crucial for interpreting spirometry results. Synoptic reporting, which uses structured checklists, helps clinicians produce more complete and consistent medical reports. Standardised operator comments enable a more rapid and thorough means of generating meaningful comments to guide interpretation, regardless of the operator.

We recommend using the ATS Standardised Report form with the Global Lung Initiative (GLI) reference equations for all ages. Our reporting capabilities have been expanded to allow customised reports.

Connectivity is more important than ever, and the standards require that spirometers are able to export data to electronic medical records (EMRs). All our spirometers will be supplied with Vitalograph Connect as standard. This new middleware software eliminates the need to scan reports by providing the bidirectional ability to interface directly with major EMRs.

The ATS/ERS Standardisation of Spirometry 2019 Update has brought changes to performing and reporting spirometry. Spirometers must meet ISO 26782:2009 standards with accuracy of ± 2.5%. The GLI reference equations are recommended, and FEV₁ and FVC should be assessed separately. EOFE is the new end-of-forced-maneuvre parameter. Spirometers should provide better feedback to operators, and bronchodilator responsiveness testing replaced reversibility testing. Vitalograph's new spirometers implemented changes to improve results.

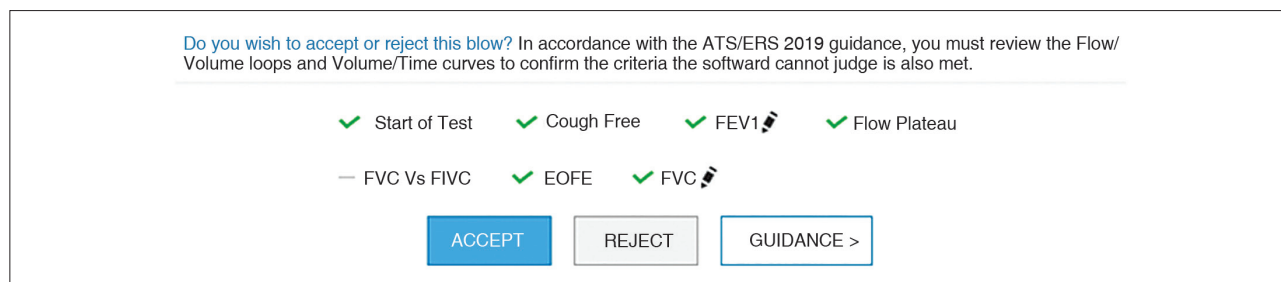


Figure 4. Post-manoeuvre test quality feedback

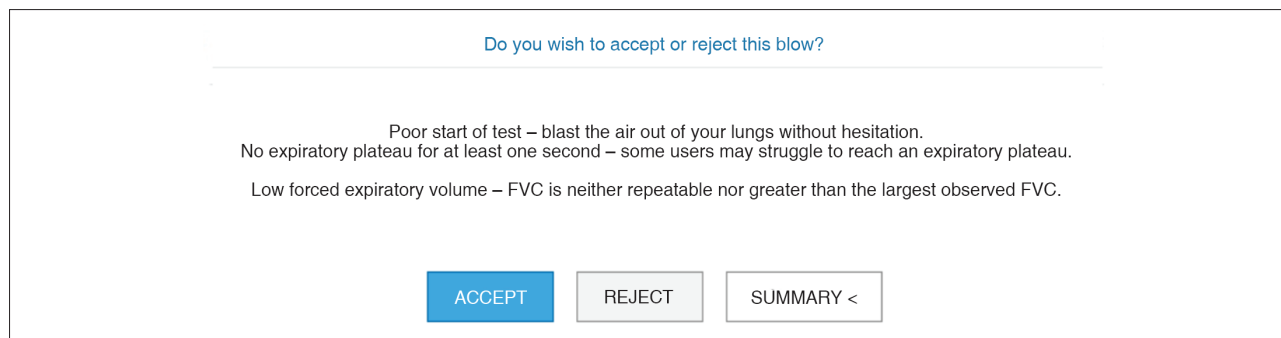


Figure 5. Sample guidance regarding test quality

Grade	Number of Measurements	Repeatability: Age ≤ 6 yrs
A	≥ 3 acceptable	Within 0.100 L*
B	2 acceptable	Within 0.100 L*
C	≥ 2 acceptable	Within 0.150 L*
D	≥ 2 acceptable	Within 0.200 L
E	≥ 2 or 1 acceptable	> 0.200 L* n/a
U	0 acceptable AND ≥ 1 usable	n/a
F	0 acceptable AND ≥ 0 usable	n/a

* Or 10% of the highest value, whichever is greater

Table 1. Grading system for FEV₁ and FVC for patients aged ≤ 6 years

Grade	Number of Measurements	Repeatability: Age > 6 yrs
A	≥ 3 acceptable	Within 0.150 L
B	2 acceptable	Within 0.150 L
C	≥ 2 acceptable	Within 0.200 L
D	≥ 2 acceptable	Within 0.250 L
E	≥ 2 or 1 acceptable	> 0.250 L n/a
U	0 acceptable AND ≥ 1 usable	n/a
F	0 acceptable AND ≥ 0 usable	n/a

Table 2. Grading system for FEV₁ and FVC for patients aged > 6 years

Summary

- The ATS/ERS Standardisation of Spirometry 2019 Update has introduced some key changes to how spirometry should be performed and reported.
- Spirometers must meet the ISO 26782:2009 standards and meet an accuracy of ± 2.5%.
- The default set of reference values for all ages should be the GLI reference equations.
- FEV₁ and FVC should be assessed for acceptability and repeatability separately, and can be reported from separate manoeuvres.
- End of test (EOT) has been replaced by end of forced expiration (EOFE) to define the end of the forced manoeuvre.
- Patients are no longer required to blow out for at least six seconds, and there is no need to blow out beyond 15 seconds.
- A grading system for FEV₁ and FVC has been introduced to quantify the quality of the measurements.
- Spirometers should provide enhanced feedback to the operator.
- Reversibility testing has been renamed bronchodilator responsiveness testing.
- Vitalograph's new spirometers have implemented the suggested changes to help operators get the best results for their patients. 📄

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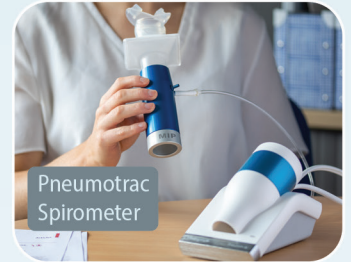
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The Pulse of Technology

SASOM news

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ICOH2024 Congress: Second announcement – registration and call for abstracts now open

The second announcement for the upcoming 34th International Congress on Occupational Health of the International Commission on Occupational Health (ICOH) – ICOH2024 (to be held in Marrakesh, Morocco, from 28 April to 3 May 2024) – was launched at the end of March 2023, listing the keynote and plenary speakers. Registration is now officially open and occupational health and safety practitioners across a wide range of fields of expertise are invited to register to participate in the congress and take advantage of the early-bird fee. Abstracts can be submitted for consideration as oral or poster presentations, under the 51 topics that are listed on the website and the second announcement for Free Paper Sessions. There are other benefits such as reduced fees for students and for congress participants from low- and middle-income countries (LMICs). Although the programme of the Global Policy Forum is still under development, the theme has been announced: *Strategies to improve occupational health and safety policies and implementation in LMICs*. Please access the official congress website (www.icoh2024.ma) to download the second announcement (<https://www.icoh2024.ma/2nd%20Announcement%20ICOH%202024%20.pdf>) and for more information on the developing scientific programme, key dates, grants and awards, venue, social activities, accommodation options, etc. The congress is in the process of being accredited for continuing medical education (CME) points, and the abstracts of the oral and poster presentations will be published as congress proceedings in a special online supplement of *Occupational Medicine* (impact factor: 5.629). <https://academic.oup.com/ocmed>

News from the SASOM National Office

- The South African Society of Occupational Medicine (SASOM) is represented by its Chair, Prof. Daan Kocks, on the Technical Committee on Ergonomics of the Department of Employment and Labour.
- On 9 May 2023, Prof. Kocks convened and chaired an occupational health-focused academic programme hosted by the Department of Public Health Medicine of the University of Pretoria (UP), in collaboration with Sefako Makgatho University, the University of Limpopo, and the World Health Organization (WHO) Collaborating Centre, the Gauteng Department of Health, and SASOM. The topic was 'An approach to work-related asthma in the South African setting', presented by Drs Merveilis Tengem and Elré Sauerma, with Dr Geoffrey Tafaune (member of the SASOM Executive Committee (ExCo)) as discussant, and closing remarks by Prof. Kocks. The scientific paper on which the presentation was based was authored by Prof. Mohamed Jeebhay of the University of Cape Town and can be accessed at <http://dx.doi.org/10.13140/2.1.4804.1604>



ICOH 2024
www.icoh2024.ma

34th International Congress on Occupational Health
 April 28th to May 3rd 2024
 Palais des Congrès - Marrakesh - Morocco

Second announcement

Enhancing Occupational Health Research and Practices
Closing the Gaps!

Hosted by:    

- SASOM held its ExCo meeting at the end of May 2023.
- Following the success and positive feedback received from the 2022 SASOM Annual Congress presenters and participants, the 2023 SASOM Annual Congress will once again be held in a virtual format of four sessions across four months (the last Fridays in June, July, August, and September 2023). The overarching theme of the 2023 congress is *Occupational Health Practice in 2023 – Shining a light on the shadows of medicine*. The scientific content of the first two sessions is under development, which are sub-themed *Good Practice for Occupational Health Medical Practitioners (OHMPs)* and *Updates in Legislation, Compensation, and Ethics in Occupational Health*, respectively.
- SASOM is represented on the organising committee of the upcoming conference of the ICOH Scientific Committee (SC) on the History of the Prevention of Occupational and Environmental Diseases – 7th International Conference on the History of Occupational and Environmental Health – to be held at the University of KwaZulu-Natal, from 15 to 17 November 2023. SASOM will present a poster on the history of the Society

and is awaiting the outcome of an abstract submitted for consideration as an oral presentation on the history of occupational health in South Africa. For more information and submission of abstracts, please access the official congress website:

<https://icohhistory.ukzn.ac.za>


- The 2023 ICOH midterm meeting and associated conference was held in Angers, France, in mid-May 2023. Claudina Nogueira (ICOH Vice President for SCs and SASOM ExCo member) participated and presented on site, and Prof. Kocks (SASOM Chair and ICOH National Secretary for South Africa) was one of a handful of ICOH National Secretaries who were invited to participate, for the first time, in selected sessions of the meeting; he attended virtually. A report on the ICOH midterm meeting will be published in the SASOM news section in the next issue of *Occupational Health Southern Africa*.

Free online courses on research methods

The Research Office of the Faculty of Health Sciences of UP has compiled and uploaded a list of support courses in biostatistics and epidemiology, to assist postgraduate students and supervisors alike with their research work. Topics included in the courses are research methodologies, scientific writing, research ethics, qualitative research, implementation science, evidence synthesis, and molecular modelling. Most of the courses listed are available free of charge. The information is available in the public domain and can be accessed at: www.up.ac.za/media/shared/538/Research%20services%20and%20support/Research%20Capacity%20Building/free-online-research-methods-courses_updated.zp234278.pdf

Occupational health webinars around the world

- In February 2023, Workplace Health Without Borders (WHWB) hosted a two-part webinar on silica dust exposure among workers from processing engineered/artificial stone countertops. Part A was titled 'Engineered stone countertops: How big is the problem?' (accessible at <https://www.youtube.com/watch?v=eExSoROWN6s&t=161s>). Part B was titled 'Controlling exposure to silica and advocacy' (accessible at <https://www.youtube.com/watch?v=ZWeaweT4Vaw&t=13s>).

- WHWB hosted a webinar on 11 April 2023, titled 'Dark Winter – past lessons to inform future health', presented by Dr Raina MacIntyre (physician, epidemiologist and professor of Global Biosecurity at the University of New South Wales in Australia, and adjunct professor at Arizona State University in the USA), who shared insights into historical biological attacks, laboratory accidents and epidemics, and the COVID-19 pandemic. Dr MacIntyre also provided a glimpse into new frontiers of biosecurity from her recently launched book, *Dark Winter* (accessible at <https://www.youtube.com/watch?v=oNkMx-FeNnE>). This webinar follows her first WHWB webinar presented in December 2020, where she shared her views on SARS-CoV-2 transmission and respiratory protection (accessible at: <https://www.youtube.com/watch?v=Tr-G0FivoYM>).
- Also on 11 April 2023, the World Bank hosted a webinar titled 'Supporting home as a workplace: New approaches to planning and design', drawing on experiences from Delhi and Ahmedabad in India, and reflecting on planning and design practices that have effectively supported livelihood activities. More frequently, homes, especially across the global South, double up as places of work. This has profound implications for how houses and settlements are designed, and also for how cities should be planned.
- WHWB hosted a webinar titled 'Climate Change and Health' in collaboration with Women in Informal Employment: Globalizing and Organizing (WIEGO) on 27 April 2023, to mark World Day for Safety and Health at Work, held on 28 April every year. The webinar, composed of six presentations, shared recent research insights on the intersections of climate, health, and informality from WIEGO and WHWB researchers, and presented testimonies from workers in informal employment who are on the frontline of current climate struggles, as these relate to occupational health and safety (accessible at: <https://www.youtube.com/watch?v=SghxByLLf4s>).
- The ICOH SC on Emergency Preparedness and Response in Occupational Health organised a webinar titled 'Emergency preparedness in the cold and wet', in January 2023.
- The ICOH SC on Occupational Medicine has hosted two webinars this year, viz. Health Promotion in the Workplace (16 March 2023) and Occupational Musculoskeletal Disorders (3 May 2023). 

SASOHN Academic Workshop: *Challenges of Change*

Hosted by: SASOHN KZN Inland Region

Gillian Lotze: SASOHN KZN Inland Chairperson
e-mail: gillian.lotze@mweb.co.za

INTRODUCTION

On 18 May 2023, the KwaZulu-Natal (KZN) Inland region proudly presented a successful South African Society of Occupational Health Nursing Practitioners (SASOHN) Academic Day to 60 delegates at the Anew Hotel in Hilton, KwaZulu-Natal. The event was well supported by sponsors and exhibitors with an exceptional line-up of highly distinguished speakers. The theme of the day was *Challenges of Change*, and each topic spoke to this theme in a relevant and poignant manner.

OPENING ADDRESS

The event was opened by regional chairperson, Gillian Lotze, with the following welcoming address:

"Welcome everybody, it's wonderful to see such an amazing turnout! I'd like to congratulate you for investing in yourselves today, and I want to thank you all for your support – especially those who have travelled long distances to get here. We're very proud to share with you our beautiful KZN Midlands and hope you get to see some sites before you have to leave today or tomorrow. We have an exceptional line-up of speakers and some amazing exhibitors. I hope you leave here today with a bit more knowledge, and that you feel connected, enriched, and inspired to continue your invaluable work of changing the lives of others, and making the world a better place. Our theme, 'Challenges of Change', came to us as a result of our acknowledgment of the times we are living in right now. Life has changed drastically over the last three years, and none more so than for us nurses. Change is frightening, unpredictable, uncomfortable, and risky, but is also necessary. If we are to stay relevant in these turbulent times, we need to be flexible, and resilient. Adaptability is the new currency and requires us to be open to new ways of working, learning, and communicating. Our exceptional line-up of speakers will be sharing with us the latest research and trends in their various fields, and I'm looking forward to hearing their valuable insights into how we can shift our perspectives in the way we deliver nursing care in the occupational health setting."

SASOHN KWAZULU-NATAL INLAND EXECUTIVE COMMITTEE

Gillian Lotze: Chairperson
Tony Mthiyeni: Vice-Chairperson
Kathryn Olive: Educational Representative
Kim Arnold: Secretary
Penny Wheeler: Treasurer
Sandra Koekemoer: Public Relations Officer
Sharon Severn: Member Without Portfolio

PRESENTATIONS

Ms Lotze then introduced the first speaker, Dr Makhosazane Dube, who spoke on the 'Evolution of nursing education'. She spoke about the reforms and milestones in nursing education, the phasing out of legacy qualifications, and the National Qualification Framework (NQF) and articulation pathways. The second speaker of the day was Dr Nellie Naranjee, who gave an interactive presentation highlighting the nurse's role in integrating recent evidence-based research with everyday clinical practice. She mentioned the barriers to accessing research and encouraged nurses to improve their utilisation of research in order to maintain relevance and keep abreast of latest trends. The last speaker of the first session, Dr Daniel Fiandeiro, an emergency medicine specialist, spoke about 'Innovations in digital health'. He discussed the benefits and challenges of digital health technology and systems, as well as telemedicine and artificial intelligence. He then spoke about a mobile application that assists with the tracking and management of Workman's Compensation Act (WCA) claims and various online courses for medical personnel.

Session Two was hosted by Tony Mthiyane, who introduced Prof. Nceba Nqaleni. His topic was 'Traditional medicine and its role in wellness'. He spoke about the advantages of traditional medicine and highlighted the importance of thorough history-taking along with openness to patient usage of, and collaboration with, traditional healers. The next speaker was clinical pathologist, Dr Hellen Hlongwane, who spoke about 'Antimicrobial stewardship' (AMS). She covered the aims of AMS programmes, highlighting their importance, core elements and strategies – in both hospitals and the community. She also explained how these programmes are implemented and assessed to evaluate their efficacy. The last speaker in Session Two was Dr Sujatha Hariparsad, whose topic was the 'Occupational health practitioner's duty of care – ethical and legal challenges'. She covered core ethical principles and issues of dual loyalty. In addition, she touched on practical cases and demonstrated ways that occupational health practitioners can ensure that they act ethically in all situations.

After breaking for lunch and allowing the exhibitors an opportunity to showcase their companies and hand out prizes, Sr Robyn de Wet presented her Master's thesis – a study investigating the 'Knowledge, attitude and perception of occupational health nurses towards the testing of cannabis in the workplace'. She educated the audience on the cannabis plant, its usage, and what constitutes impairment. She briefly covered the implications of the recent legislative changes, and the future of cannabis testing and training. The final speaker of the day was clinical psychologist, Alistair Mork-Chadwick, who spoke about 'Adjusting to change'. He highlighted the four character traits that make it difficult to adjust to change, and then demonstrated how to develop a growth mindset, flexibility, and emotional resilience.



SASOHN
 SOUTH AFRICAN SOCIETY OF
 OCCUPATIONAL HEALTH
 NURSING PRACTITIONERS
Registered Public Benefit Organisation (Reg no 8571079153)

Academic Day 2023

"Challenges of Change"

	Time	Topic	Speaker
		Registration	
	08h30	Opening and Welcome Address	Michelle Bester
1.	08h40 - 09h10	Addiction - Changing the Narrative	Dr Ruwayda Petrus
2.	09h15 - 09h45	Linking Medical Research and Clinical Practice	Dr Nellie Naranjee
3.	09h50 - 10h20	Innovations in Digital Health	Dr Daniel Fiandeiro
	10h25 - 10h45	Tea	
4.	10h45 - 11h15	Insights into the Use of Traditional Medicines	Prof Nceba Gqaleni
5.	11h20 - 11h50	Antibiotic Stewardship	Dr Helen Hlongwane
6.	11h55 - 12h25	The Evolution of Education in Nursing	Dr Makhosazane Dube
7.	12h30 - 12h50	Student Presentation of Thesis	Sr Robyn De Wet
	12h50 - 13h50	Lunch	
	13h50 - 14h20	Exhibitors: 2 min each to present + lucky draw prizes etc.	
8.	14h25 - 14h55	Navigating the OH Practitioner's Duty of Care - ethical and legal challenges	Dr Sujatha Hariparsad
9.	15h00 - 15h30	Adjusting to Change	Alistair Mork-Chadwick
	15h30	Closing	

Date: 18 May 2023, Venue: Anew Hilton Hotel, Pietermaritzburg

Our Nurses Our Future.

Cost:

Members: R1,600
 Non-Members: R2,600
 Student/HLM: R1,050
 Exhibitor: R2,600

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 Website: www.sasohn.co.za

EXHIBITORS

The exhibitors gave away some wonderful lucky-draw prizes. A big thank-you goes to the following exhibitors:

1. Ampath Laboratories – one of South Africa's foremost laboratories, with innovative professional and quality pathology and laboratory medicine services to healthcare practitioners and patients.
2. D & R Incorporated – debt specialists providing debt relief to private and corporate employees, particularly with regard to financial rehabilitation.
3. Education for Health Africa – a training institute offering high-quality occupational health-related short courses.
4. Gulf Drug Company – providers of generic equivalents, contributing to high-quality healthcare at affordable prices.
5. H.A.S.S. Industrial/The Ear Institute – a comprehensive range of hearing healthcare services for adults and children, ranging from a quick HearingCheck™ to a full diagnostic hearing evaluation.
6. Kendon Laboratories – providing medical and remedial equipment and supplies.
7. Mi7 – leaders in ambulance and emergency care, education and training, and event medical services.
8. Micromega Publications – focuses on giving life to innovative ideas that have a social impact, by publishing and supplying health and wellness information for South African companies.
9. Midlands Specialist Hospital – a private hospital comprising 274 beds across all major healthcare disciplines, situated in the centre of Pietermaritzburg.
10. Rent2Recover – specialising in a wide range of mobility equipment, including electric wheelchairs, electric scooters, hospital beds, knee scooters, bath lifts, oxygen concentrator machines, and many more. They also have a wide range of medical equipment available for purchase.
11. Royal Rehabilitation Hospital – a private sub-acute rehabilitation facility offering a wide variety of medical services that bridge the gap between acute, sub-acute, and home care.
12. Software 1066 – the home of ClinicSister and SHREQManager software solutions.
13. SOS Optometrist – a fully accredited and licensed optometry practice with a rich history in KwaZulu-Natal, focusing on on-site eye screenings with affordable solutions.
14. SSEM Mthembu Medical – the leading distributor of electro-medical devices and medical consumables throughout southern Africa.
15. Stanyer Electroserve – providing personal yet professional service in the ever-changing world of hi-tech medical equipment.

ACKNOWLEDGEMENTS

We thank our sponsors: Ambergldes Retirement Village, Ampath Laboratories; Drinkerbell, Illovo Sugar, Medpak, Occusure, Royal Rehabilitation Hospital, and Wedgewood. The KZN Inland Executive Committee members also extend their sincere thanks to all members, exhibitors, and sponsors for their generous support in making the day a total success. 📌

SAIOH news

As part of our service to members, in this newsletter we provide feedback on the latest developments within the Southern African Institute for Occupational Hygiene (SAIOH). SAIOH exists solely for its members and is reliant on them to continue to serve this noble profession ethically. Therefore, we invite your inputs and feedback on any matters communicated below.

SAIOH PRESIDENT

Naadiya Mundy: SAIOH President
e-mail: president@saioh.co.za



Naadiya Mundy
Photograph: courtesy of SAIOH

Promoting worker health: managing seasonal illnesses through technology and occupational hygiene

Understanding the factors that contribute to the seasonality of infectious diseases, such as influenza, is crucial for effective prevention and control measures in the workplace. Among these factors, humidity and temperature play significant roles in the occurrence and transmission of the influenza virus. In addition to addressing everyday safety concerns, organisations should focus on protecting workers from

seasonal illnesses. With advancements in technology, innovative solutions can be employed to promote a healthy environment and minimise the impact of seasonal illnesses on employees in the workplace.

Seasonal patterns of influenza epidemics vary by geographical region. In temperate regions, influenza epidemics exhibit a winter-time seasonality, whereas some (sub)tropical locations experience annual epidemics that align with the rainy season. Other regions exhibit bi-annual incidence patterns, or year-round persistence.¹

Many illnesses, including respiratory infections, tend to be more prevalent during the winter months, for several reasons:

1. Cold weather: low temperatures do not directly cause illnesses, but they can contribute to conditions that promote the spread of viruses. Cold air dries out the respiratory tract, increasing susceptibility to viral infections. People also tend to spend more time indoors during colder months, in close proximity to one another, increasing the opportunities for viruses to spread.
2. Decreased immune function and drying of respiratory airways: studies suggest that our immune systems are less effective in fighting infections during winter. Factors such as reduced vitamin D levels due to limited sunlight exposure, seasonal fluctuations in immune cell activity, and increased stress levels all contribute to decreased immune function, making individuals more vulnerable to infections.

Additionally, low relative humidity levels cause the cells and mucous linings of our airways to dry out, negatively impacting their function as a defence against viral particles and foreign substances. In environments with inadequate moisture, viral particles have a higher likelihood of 'docking' at airway receptor sites, which increases the risk of infection.

3. Indoor crowding: during winter, people tend to spend more time indoors in enclosed spaces to escape the cold. This increased proximity/crowding provides a favourable environment for viruses to spread through respiratory droplets.
4. Inadequate ventilation: indoor environments may have limited ventilation during winter months as windows and doors remain closed to conserve heat. This can lead to inadequate airflow and an accumulation of airborne pathogens, increasing the risk of respiratory infections. For example, as humidity levels increase, so does the decay of viral particles,² reducing the amount of viral material suspended in the air. Low relative humidity, such as experienced indoors during winter, promotes the evaporation of droplets and allows larger droplets to remain suspended in the air as aerosols for prolonged periods.³
5. Compromised protective measures: during winter, people may be less likely to engage in preventive measures, such as hand hygiene, due to dry skin or the perception that viruses are less prevalent. This can further facilitate the spread of viruses.

It is important to recognise that viruses can be transmitted throughout the year, although certain factors contribute to increased transmission in winter. Therefore, to safeguard worker health, it is important to optimise ventilation, humidity, and temperature by using modern technology, such as real-time monitoring, and enhancing indoor air quality. This proactive approach empowers organisations to identify potential hazards swiftly, evaluate exposure levels, and implement control measures to ensure worker health and safety.

Real-time monitoring involves the utilisation of advanced sensors, instruments, and technology to collect data in real time and provide immediate feedback to the occupational hygiene, health and management team. Promoting good hygiene practices, encouraging vaccination, and maintaining a healthy lifestyle are essential in mitigating infections, regardless of the season. By continuously monitoring indoor air quality, organisations can promptly respond to any deviations from recommended standards, minimise occupational risks, and prioritise the wellbeing of their workforces.

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NATIONAL COUNCIL FEEDBACK

Naadiya Mundy: SAIOH President

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Strategic plan and objectives

The current SAIOH strategy (five-year) plan is steered by Jaco Pieterse. The strategy is discussed, and progress thereof is evaluated, at each monthly SAIOH Management Board meeting and at the quarterly Council meetings. Several objectives/targets have been met.

The strategy will formally be launched at a special annual general meeting (AGM) in July 2023.

The SAIOH five-year (2023–2027) strategic objectives are:

- #1:** To maintain and ensure SAIOH's relevance in creating workplaces free of health risks in South Africa, Africa and the Middle East.
- #2:** To embrace the application and use of 4IR and digital technologies in occupational hygiene practice, e.g. real-time monitoring.
- #3:** To preserve professionalism and ethical professional practice amongst occupational hygiene practitioners, e.g. through approved ethics courses, certificates, and legal review of ethics procedures.
- #4:** To develop and build the SAIOH brand in South Africa, Africa, and the Middle East, e.g. through occupational hygiene awareness videos, talks, newsletters, etc.
- #5:** To contribute to improving training and the continuous development of the occupational hygiene profession in South Africa, Africa, and the Middle East, e.g. the SAIOH Occupational Hygiene Skills Forum (OHSF), occupational hygiene technical workshops, position, and technical papers etc.
- #6:** To provide and maintain good governance and administrative practices within SAIOH, e.g. through staff meetings, updated conditions of service, memoranda of incorporation (MOIs), financial reports, and the SAIOH quality management system (QMS).

Ethics

SAIOH entered into an agreement with well-known legal advisors, NGO Law, to advise the Institute as required. The first task was to develop an Mol to replace the current Constitution. The Mol will be presented at a special AGM in July 2023. Our legal advisor's next task will be to review the SAIOH Ethics Policy and Procedure(s), thus enabling the Ethics Committee to start its work in earnest. The ethics plan is an important part of the SAIOH strategy.

Note

From January 2023, all SAIOH-certified members will be required to provide proof that they have completed an acceptable occupational hygiene ethics training course. A one-year phase-in period was allowed during 2022. The recording of the ethics webinar presented by Terry McDonald of BOHS during the 2021 annual virtual conference was sent to all attendees and those who purchased the recording.

During the 2022 conference, Terry McDonald presented a hybrid Professional Development Course (PDC) on ethics in the occupational hygiene environment. A multiple-choice assessment/test (MCQ) was developed, based on the 2021 webinar. This is in a Survey Monkey format that SAIOH uses. There is a time limit of 30 minutes, and only members who qualified (attended the course) will receive a passcode and access to the test. There will be three opportunities to complete the test at weekly intervals, with the system automatically marking the paper and notifying the candidate of the result. The required mark to pass is 60%.

We will develop a similar MCQ for the 2022 Ethics PDC; delivery date is early 2023, and the same rules will apply. During 2023, further ethics sessions will be offered at the branch workshops, and at the 2023 SAIOH Annual Conference.

SAIOH branch activities

The first Gauteng branch meeting for 2023 took place on 3 March 2023. The SAIOH General Manager, Deon Jansen van Vuuren, gave SAIOH feedback from the last quarter of 2022, and the way forward for 2023, including the SAIOH five-year plan. One hundred and thirteen occupational hygiene practitioners attended this virtual meeting.

The Western Cape branch hosted its first in-person meeting on 10 March 2023. Deon Jansen van Vuuren repeated the presentation given to the Gauteng branch. This was followed by a lively question-and-answer session. There were 32 attendees.

The Gauteng branch held its second meeting on 21 April 2023 at the Draeger SA offices in Sandton. Draeger SA hosted this meeting and conducted a practical and insightful demonstration regarding the differences between FFP2 respirators. This was followed by an online presentation on the new SAIOH strategic (five-year) plan by Jaco Pieterse. Deon Jansen van Vuuren provided some feedback on the planned annual conference in Cape Town (23–26 October 2023). Mr van Ordel gave a presentation on the groundbreaking research of Anglo American to change its carbon footprint by replacing the massive ore haulage trucks' diesel engines with hydrogen-driven engines. There were 25 in-person attendees and 11 joined online.

The Botswana branch, now registered in Botswana as the Botswana Association for Occupational Hygiene (BAOH), held a special workshop via a Microsoft Teams meeting on 2 March 2023 to discuss what is required from them to apply to host the 2024 SAIOH Annual Conference in Botswana.

The BAOH held its first meeting for 2023, online, on 19 April. The presentations were:

- An update of the BAOH strategic plan and development as a national occupational hygiene association (Pheto Mosinyi and BAOH committee members)
- The official bid to host the 2024 SAIOH Annual Conference
- Occupational hygiene as a priority skill in Botswana (by a senior officer in the Botswana Department of Mines)
- Progress on developing contacts and memoranda of understanding (MoUs) with important stakeholders in Botswana
- SAIOH and the way forward in 2023, including the SAIOH five-year plan (by Deon Jansen van Vuuren)
- Risk assessments and female occupational hygiene risks at a diamond mine (BAOH committee member)

Forty-nine occupational hygiene practitioners and other interested persons attended this virtual meeting.

SAIOH financial statements

Audited financial statements for 2021 and 2022 will be presented at the special AGM in July 2023.

SAIOH Technical Committee feedback

The SAIOH Technical Committee's research on welding fumes (the measurement and the analyses thereof) is ongoing. We anticipate completing this soon and finalising a SAIOH technical and position paper in 2023.

Our second technical committee started developing technical procedures and a SAIOH position paper on heat stress management. This committee will continue doing research on heat stress. The aim is two-fold: first, to develop a technical paper, and second, to enable SAIOH to provide comprehensive and relevant proposals to strengthen the newly launched Physical Agents Regulations (PAR) – the old Environmental Regulations for Workplaces.

The Gauteng branch agreed to host a paid workshop on heat stress management in June 2023. Notification will be circulated to our members in due course.

The Council technical co-ordinator is finalising a position paper on real-time monitoring. As soon as the SAIOH Professional Certification Committee (PCC) Exco approves it, it will be circulated to all SAIOH members and stakeholders.

International feedback

The American Industrial Hygiene Association (AIHA) invited SAIOH to be one of its international partners in its exciting hazardous chemical agents (HCA) CARE programme. *Watch this space.*

The Occupational Hygiene Training Association (OHTA) and International Occupational Hygiene Association (IOHA) continue to publish their newsletters. Links are e-mailed to all SAIOH members and published on the SAIOH website: www.saioh.co.za. Please note OHTA's new website: www.ohatrain.org

Garth Hunter is SAIOH's representative on the IOHA Board and its National Accreditation Recognition Committee (NARC). The Board and NARC held meetings in April and May, respectively.

Annual SAIOH Scientific Conference

The hybrid 2023 Annual Scientific Conference is planned for 23–26 October this year. The conference will be paired with the International Occupational Hygiene Association's (IOHA) meeting (on 22 and 23 October 2023). SAIOH will develop a dedicated webpage for the conference, send out comprehensive conference notifications, and design a flyer. E-mail notifications (Mailchimps) with registration links, sponsorship details, and exhibitor invitations will be sent to out to alleviate administration and registration logistics.

New SAIOH website

SAIOH engaged website developers to overhaul the current website – specifically to allow integration with the Member Management System (MySAIOH). The framework, with the necessary integration, was delivered. The SAIOH administration team, led by Naadiya Mundy, is progressing well with the implementation and population of the new website. Special assistance was enlisted to speed up the completion. The aim is to launch the 'new' website at the special AGM in July 2023.

Communications

SAIOH publishes its newsletter and Presidents' page in two electronic media formats, namely the *Occupational Health Southern Africa* (OHSA) journal, and the *African OS&H* magazine (A-OS&H). These publications are issued every two to three months. The links are sent to all members via our Mailchimp (e-mail notification) system and posted on the SAIOH website.

SAIOH communicates daily with its stakeholders via e-mails, phone calls, and virtual meetings about important news, technical information, legislation changes, new standards, occupational hygiene job opportunities, occupational hygiene products and services, courses, and webinars on occupational hygiene, health, occupational and environmental safety, etc.

FROM THE PROFESSIONAL CERTIFICATION COMMITTEE (PCC)

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Certification assessments

A summary of results from March 2023 written assessments is provided in Table 1.

Table 1. SAIOH PCC certification assessment results (31 March 2023)

Certification category	Written assessments			
	Assessed n	Passed n	Failed n	Pass rate %
OH assistant	36	31	5	86.1
OH technologist	17	9	8	52.9
Occupational hygienist	22	15	7	68.2
Total	75	55	20	73.3

The Q1 PCC written assessments took place on 17 March 2023; 32 virtual oral assessments were conducted from 21 April to 5 May 2023. Outcomes will be communicated in due course.

Oral assessment improvements

The PCC technical teams continue to revise the PCC oral assessment format and questions in line with the occupational hygiene self-assessment tool. Two PCC technical teams are working in parallel. The first is updating the SAIOH self-assessment tool and revising the PCC oral assessment format, while the second is developing questions and the required answers. Improvements in the assessment format are to ensure that the growing field of occupational hygiene is covered and that the assessment format and tools still are relevant, current, and fair.

Occupational Hygiene Skills Forum (OHSF)

The SAIOH Occupational Hygiene Skills Forum (OHSF) was initiated to coordinate all aspects related to the recognition of occupational hygiene training materials (e.g., the asbestos training courses, and occupational hygiene training providers and institutions), and the development and management of assessment and examination systems, where needed.

The OHSF was instrumental in coordinating the development of a bulk asbestos sampling and analysis training course. Julie Hills, Celia Keet and Karen du Preez spent time and energy developing the course training materials. The team developed asbestos courses, the

most recent (AP103) of which is related to asbestos risk assessments. This training material is now available for registered training providers to use, but the assessments will continue to be administered by SAIOH at a fee per candidate. Please contact Lee Doolan for more information (lee@saioh.co.za).

The OHSF also participates in the W201 MCQ Consortium, comprising Workplace Health Without Borders (WHWB), the American Industrial Hygiene Association (AIHA), SAIOH, and the Australian Institute of Occupational Hygienists (AIOH). This working committee is developing and verifying multiple-choice questions (MCQs), which will be incorporated into a database that will be accessible by all assessment paper developers to use in the OHTA W201 papers. In SAIOH's case, the database will also be accessible for the registered occupational hygiene assistant (ROHA) papers.

Another function of the OHSF is to evaluate applications from tertiary institutions for recognition of their occupational hygiene-related qualifications. The OHSF is progressing well with these accreditations. It has developed a matrix to evaluate the occupational hygiene content in line with the 50% requirement. All tertiary institutions that offer occupational hygiene qualifications are encouraged to contact the PCC administrator for information regarding application for recognition (lee@saioh.co.za).

Details of recognised training providers and recognised qualifications will be available on the SAIOH website (www.saioh.co.za). This will make it easier for students and certification candidates to select suitable occupational hygiene training programmes that meet SAIOH and international requirements. [🔗](#)

Resilience in TB and HIV response in the face of the COVID-19 pandemic

Florence Magampa: Occupational Health Programme Manager, MHSC
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INTRODUCTION

Tuberculosis (TB) and human immune virus (HIV) are public health concerns that continue to cause ill health and, if untreated, claim many lives, globally. TB remains the leading cause of death among people living with HIV (PLHIV) according to the World Health Organization (WHO),¹ and this is primarily because HIV weakens the immune system.

It would be, without doubt, a huge breakthrough to end/eliminate both HIV and TB, not only due to their devastating impact on health, but also their socio-economic impacts. This is one of the main reasons that global and national targets were set to end the two epidemics (TB and HIV) by 2030 and 2035, respectively.

The COVID-19 pandemic had devastating impacts on implementation of TB and HIV programmes (particularly on diagnosis and treatment), and on reporting, globally and nationally. Neither global nor national targets were met by 2020, and TB and HIV-related deaths increased from 2019 to 2021.^{2,3}

The South African mining industry (SAMI) was not exempt from the setbacks as progress was negatively affected, particularly in 2020 during the hard COVID-19 risk-based restrictions. With more than 450 000 employees in the SAMI in 2020 and 2021,⁴ some of whom worked in high-density areas, the impact of COVID-19 on the health and wellbeing – particularly of vulnerable groups such as those with past or present TB, PLHIV, and those with other chronic diseases – could have been much worse. However, it is encouraging that the sector remained resilient throughout the epidemic; some mines have recovered and, in certain instances, surpassed progress made up to 2019.

This report aims to illuminate the sector's resilience in TB and HIV responses during the COVID-19 pandemic, by looking at outcomes from the Department of Mineral Resources and Energy (DMRE) (DMRE 164 data, which are also contained in the Mine Health and Safety Inspectorate (MHSI) Annual Reports).

THE SAMI'S TB AND HIV RESPONSES

The SAMI has a long history of high rates of TB and HIV, especially in the gold sector. Systematic monitoring and reporting on the two diseases in the sector started in 2014, through the Department of Mineral Resources and Energy (DMRE). The mining industry, through the Mine Health and Safety Council (MHSC), holds biennial Occupational Health and Safety (OHS) Summits to review the state of health and safety in mines. In addressing the TB and HIV disease burdens in the sector, the Mining Industry TB, HIV and AIDS Advisory Committee (MITHAC) was established under the auspices of the MHSC to advise the MHSC and the sector on TB, HIV, and AIDS-related policies and regulatory mechanisms. This tripartite alliance (representing the state, mine employers, and organised labour) continues to play a role in developing guidelines, guidance notes, and policy and reporting forms to ensure that the sector can develop, implement, and monitor HIV and TB programmes.

At the 2014 OHS Summit, industry principals agreed on the TB and HIV milestone targets below, to support the National Strategic Plan (NSP) and to accelerate the SAMI's journey to zero harm:

- By December 2024, the TB incidence rate should be at or below the national TB incidence rate; and
- 100% of employees should be offered HIV counselling and testing (HCT) annually, with eligible employees linked to an antiretroviral treatment programme as per the NSP.

Other initiatives were put in place to assist mines integrate monitoring of TB and HIV programmes implementation and stakeholder engagement, which includes contact tracing, such as the Masoyise Health Programme, under the Minerals Council South Africa. The role of organised labour has also been enormous in the fight against TB and HIV. It raised health and safety concerns (which included the high TB rates in the sector and lack of a monitoring system), which then led to outcomes from the Leon Commission of Inquiry into Safety and Health in the Mining Industry.⁵ Organised labour also contributes to policy and regulatory mechanisms development, participation in research, and employee education and communication.

THE SAMI'S PERFORMANCE DURING THE COVID-19 PANDEMIC (2020–2021)

The MHSC, through the MITHAC, recently (in March 2023) analysed data from the DMRE 164 TB and HIV reporting template (as revised) for reporting years 2013–2021, with special interest in 2019–2021 (prior to and during the COVID-19 pandemic), to determine the impact of the epidemic on TB and HIV response in the sector (see Figure 1). The following were outcomes:

Reporting (on the DMRE 164 forms)

Reporting on the DMRE 164 form on TB and HIV to the regulator (the DMRE) in 2020 was higher than in 2019, with 775 reports submitted in 2020 compared to 754 in 2019, and continued to increase in 2021 (789 reports).

In as far as TB and HIV compliance indicators are concerned, the following was noted:

Integrated HIV and TB policy

Total compliance with the policy was at 94% in 2019 and, although a decrease of 2.1% was noted in 2020, compliance remained above 90%. Compliance increased from 91.9% in 2020 to 93.7% in 2021, reverting closer to the 2019 performance. The highest-performing commodity in 2021 was the platinum sector at 100%, followed by the coal and diamond sectors – both at 97%.

Integrated HIV and TB programme

Total compliance with the integrated programme was low among reporting mines in 2019, at 59.2%. Compliance decreased further in 2020, by 0.4% to 55.8%. In 2021, however, mines' compliance

improved by 1.8% to 60.6%, surpassing the 2019 performance. The platinum and coal sectors were at performance levels of above 90% in 2021, followed by the gold sector at 86%. The diamond sector was at 11.5% in 2021, which was an improvement of 4.7% from the 2019 performance.

HIV and TB programme budget

The overall compliance on TB and HIV programme budgets by mines was low in the three reporting years (2019–2021). Compliance increased by 1.1% from 2019 to 2020, but decreased by 0.6% in 2021. Generally, all commodities regressed in 2020, with improvements in 2021, with some surpassing the 2019 figures.

Monitoring and evaluation systems for TB and HIV programmes

Total compliance with monitoring and evaluation systems decreased slightly by 0.1% in 2020 (from 57.4% in 2019) and by a further 0.3% in 2021. This calls for urgent improvement by the sector.

SAMI'S 2014 TB AND HIV MILESTONES

- By December 2024, the TB incidence rate should be at, or below, the national TB incidence rate; and
- 100% of employees should be offered HCT annually, with eligible employees linked to an antiretroviral treatment programme as per the NSP.

Progress in achieving the milestones

The SAMI TB incidence rate has been consistently lower than that of the South African general population since 2017 (at 545 per 100 000 population in SAMI vs 738 per 100 000 in the general population), as seen in Figure 2. In 2020 and 2021, the SAMI TB incidence rates were 312 and 225 per 100 000 population, respectively, compared to the general population rates of 554 and 513 per 100 000 population, respectively. With only 18 months left until December 2024, it is likely that the SAMI will reach the TB incidence milestone.

Although the COVID-19 pandemic affected TB screening in the sector during 2020 and 2021, it has remained above 90%. TB treatment has remained above 90% since 2015, with 100% of people diagnosed with TB on treatment in 2021 (based on mines having reported on DMRE 164 reporting templates in that year).

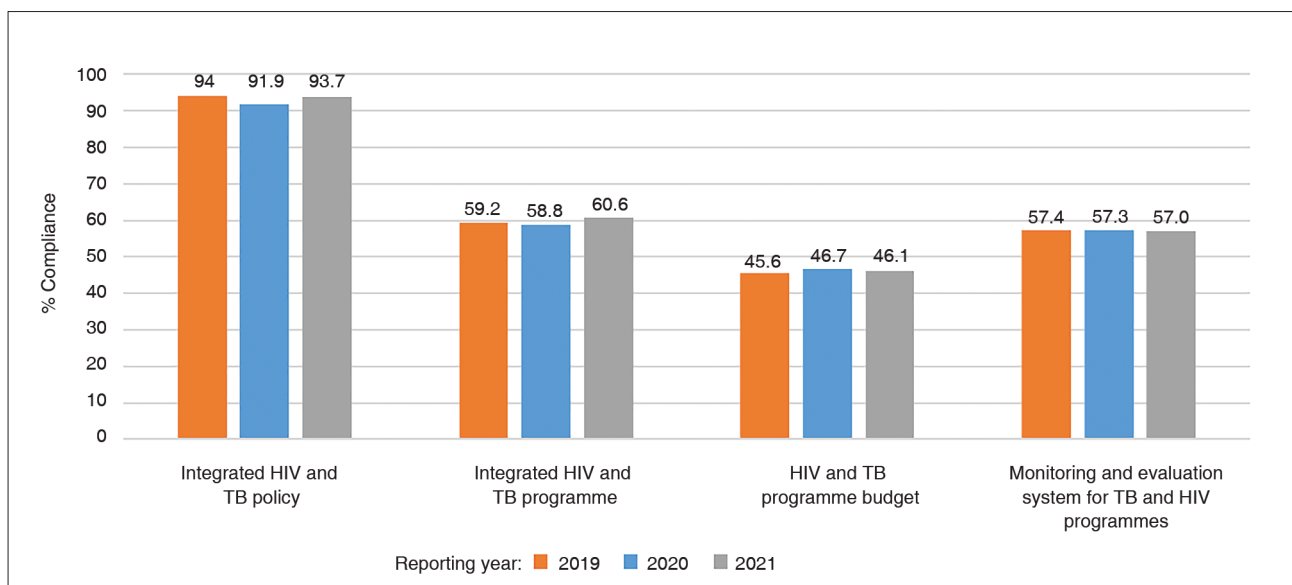
As far as HCT is concerned, the SAMI has not met its target on an annual basis; however, there has been a gradual increase in HIV counselling since 2014 (when it was at 55.7%). In 2020, the sector improved slightly by 0.3% to 73.5%, but regressed to 66% in 2021. HIV testing regressed by 7.1% in 2020 (when it was at 59.1%), but improved substantially to 73% in 2021.

DISCUSSION

It is evident that the SAMI remained resilient with regard to the TB and HIV response amidst the COVID-19 pandemic. In 2020, the sector improved on TB and HIV reporting and the allocation of budgets to TB and HIV programmes, however, the implementation of the integrated policy, programme, and monitoring regressed slightly during the Pandemic. The industry improved in 2021, to the 2019 figures, while other mines improved beyond their 2019 performances. TB screening and treatment remained above 90%, while HIV counselling regressed from 2020 to 2021. HIV testing, on the other hand, improved in 2021.

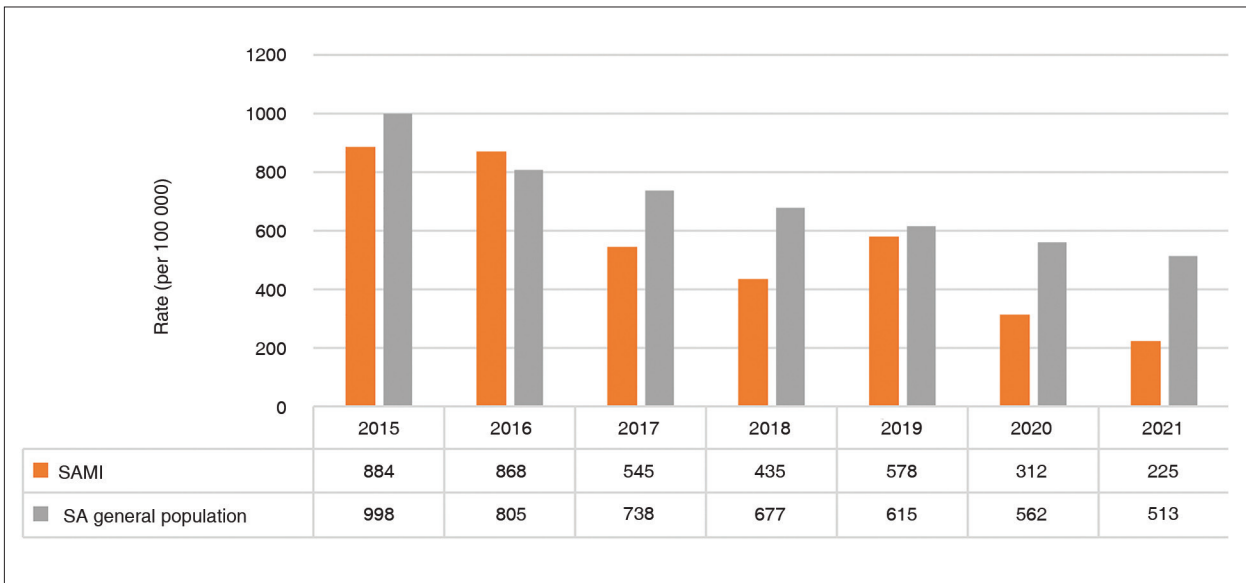
Several initiatives contributed to the sector remaining resilient while fighting SARS-CoV-2, which had claimed the lives of approximately 750 mine employees by July 2022.¹⁰

- Through the MHSC, the guiding principles and guidelines on the prevention, mitigation, and management of COVID-19 were developed to guide the industry.
- Measures were put in place to protect mine employees against COVID-19 and, through mines' risk assessments, key populations (including vulnerable groups) were prioritised.
- In 2020, when the Minerals Council observed a decline in reporting and performance on the 2014 MHSC and Masoyise milestone indicators by its members, a study was commissioned to identify companies that were performing well amidst the Pandemic.¹¹



Source: DMRE MHSI Annual Reports, 2019–2021⁶⁻⁸

Figure 1. Compliance with DMRE 164 TB and HIV indicators by South African mines (2019–2021)



Sources: DMRE Annual Reports, 2015–2021, World Health Organization⁹

Figure 2. Trends in TB incidence (SAMI vs SA general population)

Case studies were documented, together with critical success factors (CSFs) from the selected mine companies, for knowledge transfer and adoption by other mines. From the study, five mining companies were identified and, in all of them, the following CSFs were found to be common in maintaining good performance: leadership, financial and human resourcing, electronic health information systems, stakeholder engagement, and communication. The study outcomes have been widely disseminated.

- Agility to respond to emerging risks has been evident in the sector.
- Education, awareness, and communication – these continue to take place at mine level and industry level through platforms such as the Occupational Health Dialogue, the World AIDS Day and TB Day campaigns, DMRE interaction with the mines, and at international conferences where the mining industry continues to learn from others.

A comprehensive response to TB, HIV, and AIDS by the industry will be discussed in detail at the SAMI’s parallel session on *Sustainable responses to HIV and AIDS in the world of work*, on 22 June 2023, at the SA AIDS Conference, including the NSP 2023–2028 and proposals on how the SAMI should implement relevant indicators. Stakeholders are encouraged to register and attend the conference via the link: <https://saaid.co.za/register/>

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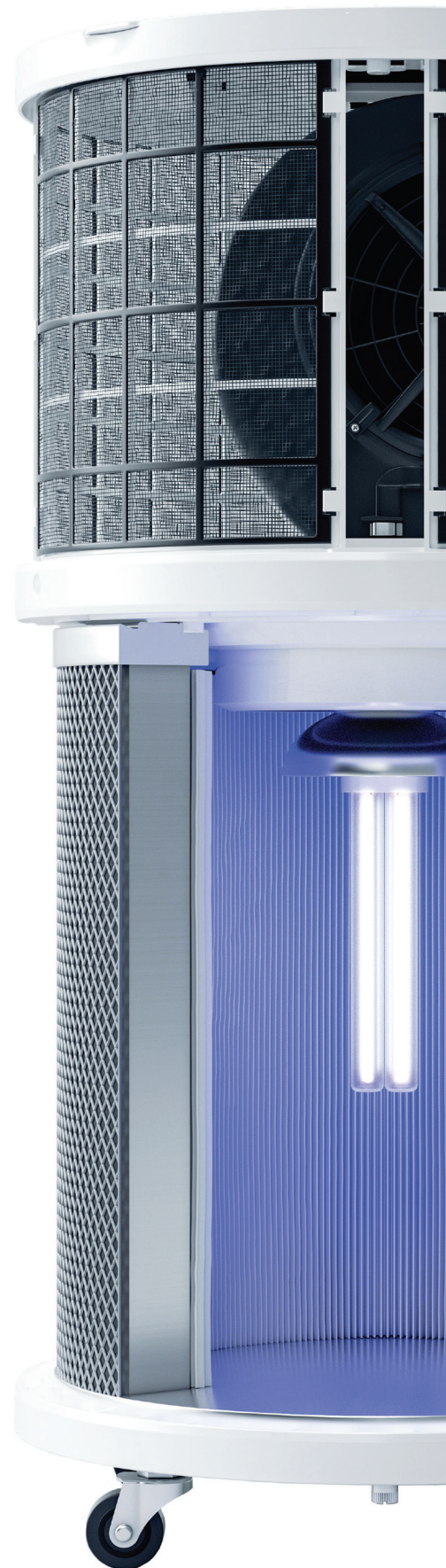
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