

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

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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

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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.

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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. [🔗](#)