

STRONG MEDICINE

While South Africa's mining industry has one of the most advanced health and safety programmes in the world, a number of challenges still remain, according to Dr Sophia Kisting, executive director of the National Institute for Occupational Health. **BY KERRY DIMMER**

FOR the medical practitioners who witness and attempt to alleviate the suffering of patients who have been exposed to the health hazards of mining, there may never be enough legislation or comprehensive measures to curtail the discomfort and life-threatening ailments associated with the industry.

Dr Sophia Kisting is one such doctor. Aside from her role as executive director of the highly regarded South African entity, the National Institute for Occupational Health (NIOH), her specialisation in global and local public health environments over three decades has led her to conclude that no matter what advances are made in the workplace in terms of occupational health and safety (OHS), there will always be opportunities to do things better, influence new or improved standards and prevent some of the dominant illnesses.

'When you work in medicine, you always see the end result of things that could have been done better,' she says.

'The same is true for the South African mining industry. While a lot of effort has been put into modernising health and safety, combined with the introduction of new

technology and the encapsulation of international best practices, we still have problems. And this is despite the introduction of the new Mine Health and Safety Act and the groundbreaking Leon Commission of Inquiry, which concluded in 1995.'

Dr Kisting is largely referring to health conditions currently prevalent in the industry – such as TB, silicosis and noise-induced hearing loss, the latter of which she says is much more common and debilitating than acknowledged, and usually manifests during middle to old age.

However, it's not just medical threats that present challenges – combined with related economic factors, the essence of OHS must ultimately be about making a workplace sustainable through a healthy, safe and productive workforce.

This is where the NIOH has made – and continues to make – a huge difference. It exists to ensure that workplaces can continue to function while protecting workers through healthy precautions. Through its efforts, government, employers and employees have been guided by research, pathology findings, teaching and training,

and NIOH collaborations to help ensure that the best possible OHS measures are adhered to, and thereby mining, considering its value to South Africa, is given a strong priority.

'Over many years, the NIOH has made contributions to labour and health laws – and continues to do so. In this context, it plays the role of catalyst, not only by introducing best practices but in changing perceptions,' says Dr Kisting. For example, South Africa may be considered a developing nation, yet this should not be interpreted as it having less stringent OHS laws and regulations.

'The law is protective of all of us – and it works. But we want mining companies to go beyond compliance, which means we have to have an enabling environment instead of a burdensome or punitive one.'

In changing mindsets to reflect the NIOH's desire, the key lies with communication, and Dr Kisting uses the introduction of Section 54 as a typical example.

Simplified, Section 54 is a rule that allows government-appointed inspectors to halt a mine's production, and dangerous health and safety practices is the major motivator of such stoppages. It is a controversial piece

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of legislation but, as Dr Kisting points out, safety acts were meant to cement communication between employer, worker and workers' representatives, with the government regulating the compliance with laws.

'When Section 54 is enforced, it means existing operation systems have failed. At the very least, communication has failed so the NIOH endeavours to play a valuable role to ensure that all parties are informed about approaches that can be taken to work better together to avoid Section 54 stoppages.

'In other words, to reach a level where an inspector's intervention is the exception to the rule – and health and safety concerns are inclusive and enabling.'

One of the most influential and crucial services provided by the NIOH is pathology. A statutory mandate under the Occupational Diseases in Mines and Works Act says that every mineworker is entitled to a post-mortem, which facilitates doctors being able to take a more informed approach regarding the treatment of mine-related illnesses.

'Most importantly though, a post-mortem informs us, as doctors, how accurate readings of chest X-rays and lung functions determine the level of compensation for the families of the deceased,' says Dr Kisting.

'The NIOH pathology of the lungs is gold standard. So much so that it maintains an annual pathology report that has inspired more than 100 mining-specific research papers around the globe.'

On that note, the NIOH is considered somewhat of a go-to base when it comes to research, specifically dermatology impacts in the mining sector, as well as asbestos and silica-related epidemiology. 'The work and research being undertaken is of world

importance, given the knowledge we have acquired on mining diseases.'

The training that the NIOH provides to the mining fraternity is in the same vein. When it brings all workplace actors together, a common approach towards OHS is motivated.

'Take ethics, for example,' she says. 'Ethics can be enabling or intrusive. I've been struck by discussions at mining conferences that there is a lack of trust in the mining medical profession.

'It may be historic but the perception is that because such professionals are paid by the privately operated mine, they may be biased in their medical diagnosis.

'When it is understood that everyone wants to ensure the workplace is safe and a diagnosis says it isn't, we need to ensure a culture of trust.

'Practitioners must feel confident in making accurate decisions; workers need to feel confident in the diagnosis; and as a result, employers are alerted to issues that could have serious impacts on the mines' operations.'

The NIOH training is further extended to schools of public health in South Africa to ensure that the next generation of professionals will benefit the mining environment enormously. Dr Kisting's own experience working in Soweto during the late '80s and early '90s was a valuable lesson in her career.

'The link between TB and mining, and my exposure to it in the public sector, motivated my future involvement, study and passion for occupational health.'

The NIOH also has numerous collaborative relationships that depend on its

research: such as the WHO; International Labour Organisation (for which Dr Kisting worked for seven years); Health and Safety Executive of the UK; Korea Institute of Occupational Health; and a number of Nordic country organisations and collaborating centres in Africa.

Similarly, its analytical services laboratory – the only one on the continent in the public sector – undertakes chemical analysis of substances such as lead, mercury and arsenic.

This service is set to increase across the region with the all-important support for new equipment from the Mine Health and Safety Council.

Through collaboration with the University of British Columbia in Canada, the NIOH has utilised new technology to develop the Occupational Health and Safety Information System (OHASIS), which provides invaluable data to stakeholders across the continent.

According to Dr Kisting, the doctors she has spoken to about OHASIS say the value of the system should not be underestimated and that findings need to be published on a regular basis – including the good news along with the bad.

Even if that 'bad' shows mining in a negative light? 'The NIOH is a centre for excellent scientific knowledge on the side of truth,' says Dr Kisting.

'What happens to a worker exposed to a certain chemical; what circumstances existed to create that exposure, and so on. We find answers to the complex problems through scientific research.

'It is the dissemination of this knowledge that allows us all to progress and work better together for improved OHS in the mining environment.' **MD**