

The Chamber's Health department strives to make a positive contribution at a number of levels in the spheres of public and occupational health, and in healthcare. During the year, the Chamber piloted a successful electronic occupational health reporting system; the Masoyise iTB initiative saw its second year of implementation; and the MHSC hosted its biennial occupational health and safety summit at which the health department was represented. The Department of Health disseminated the results of its survey on morbidity, mortality, incapacity and absenteeism, and there was considerable activity on the compensation front as efforts were made to integrate compensation systems.

## **POLICY AND LEGISLATIVE REVIEW**

A significant development in the policy and legislative environment in 2016 was the response by the industry to the publication in December 2015 of the White Paper on National Health Insurance (NHI) in South Africa. The Chamber, as an organisation and through BUSA, made submissions which pointed out areas of concern and called for public/private collaboration in the piloting and implementation of the NHI.

No formal paper has been published on the financing of the NHI but the Chamber did make a submission to the Davis Tax Committee on the financing of the NHI. The submission stated that the proposals in the White Paper were not sufficiently detailed and thus posed a challenge to the provision of substantial comments. The submission also pointed out the need to locate the NHI within the Comprehensive Social Security Policy, which had not been published at the time.

The Comprehensive Social Security Discussion Document was released in November 2016 for discussion at NEDLAC. The document noted four important overlaps between the NHI Paper and the social security and retirement funding arrangements and that these would have to be addressed over the implementation period, including:

- The role of earnings-related contributions as a financing mechanism.
- The tax treatment of medical scheme expenses and associated risk-pooling arrangements.
- The alignment of medical benefits provided by compensation funds and the RAF with the NHI system.
- · Post-retirement access to medical scheme membership.

The amendments to the MHSA were discussed extensively at NEDLAC during 2016 and a final NEDLAC report from all stakeholders was submitted to the chair of NEDLAC. The next step in the process will be submission to Cabinet and Parliament.

During 2016, the industry was occupied with the integration of compensation systems and amendments to the ODMWA. The Deputy Minister of Mineral Resources chaired a Steering Committee on the integration of ODMWA and the COIDA. A draft final report on the integration was submitted to the Ministers of Labour and Health in October 2016 and employers and labour were requested to finalise any outstanding issues regarding the integration.



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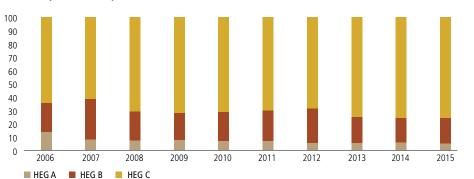
# **HEALTH PERFORMANCE AND TARGETS**

The performance of the occupational health sector is assessed from data supplied by the DMR. Companies make annual submissions to the DMR on occupational hygiene measurements and occupational diseases, including TB and HIV, diagnosed in the sector. The statistics reported below are compiled in the DMR Health and Safety Inspectorate Report 2015/2016, in the context of the occupational health milestones set by the industry in 2014.

## **OCCUPATIONAL HYGIENE**

The DMR reports that it is encouraging to note that compliance in occupational hygiene statutory returns has improved.

• Airborne pollutants: The milestone set by the industry is that, by December 2024, 95% of all exposure measurement results will be below the milestone level for respirable silica (0.05mg/m<sup>3</sup>), coal dust (1.5mg/m<sup>3</sup>) and platinum dust (1.5mg/m<sup>3</sup>). The DMR report does not provide details of the dust levels mentioned above but provides the measurements for total airborne pollutants. The chart below shows that the trends in exposures to airborne pollutants between 2006 and 2015, with the total airborne pollutants have shown a halving in homogeneous exposure groups (HEG) A exposed people (which is a very positive sign), a 10% decline in HEG B exposure and a 13% increase in HEG C exposed people. The aim is to have as many people in HEG C as possible.



#### Airborne pollutants exposures: 2006 – 2015 (%)

Exposure classification bands

A = Exposures ≥ the OEL or mixture of exposures ≥ 1  $P_{\text{exposures}} = 00\%$  of the OEL or mixture of  $P_{\text{exposures}} = 0.5\%$ 

B=50% of the OEL  $\leq$  exposures < OEL or 0.5  $\leq$  mixtures of exposures <1 C =10% of the OEL  $\leq$  exposures <50% of the OEL or 0.1  $\leq$  mixtures of exposures <0.5

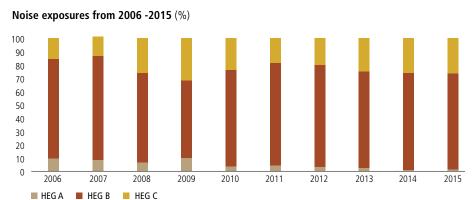
The DMR recognised that there was a collective effort by the industry to reduce exposures to respirable dust but that more was still required to eliminate these exposures. The industry was encouraged to share best practices and continuously monitor the controls, especially where improvement is not notable.

• **Noise exposure:** The milestone set by the industry is that, by December 2024, the total operational or process noise emitted by any equipment must not exceed a milestone sound pressure level of 107dB (A). The occupational exposure limit for noise is 85dB (A) based on an eight-hour exposure shift. Persons in the A and B bands are overexposed. The chart on page 49 shows the trends in noise exposures from 2006 to 2015.

Source: Department of Mineral Resources

## Health continued





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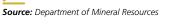
The fully-automated sampling plant at the Saldanha iron ore terminal is a result of a partnership between Kumba Iron Ore and Transnet

Exposure classification band:

 $\begin{array}{l} A = Exposures \geq 105 \mbox{ dB } L_{Aeq,8h} \\ B = 85 \mbox{ dB } L_{Aeq,8h} \leq exposures < 105 \mbox{ dB } L_{Aeq,8h} \end{array}$ 

 $C=82~dB~L_{Aeq,8h} \le exposures < 85~dB~L_{Aeq,8h}$ 

Although there has been a decline in noise exposures in HEG A, the most significant category, exposures in HEG B have not shown much improvement. Noise exposure analysis indicates an overall increase in exposures above the OEL from 0.74% in 2014 to 0.96% in 2015. This clearly indicates the challenges around engineering controls to attenuate the sound pressure levels of equipment and their sustainability. More multi-stakeholder involvement effort is required to develop and implement strategies that will assist in reducing and eventually eliminating overexposures to noise.



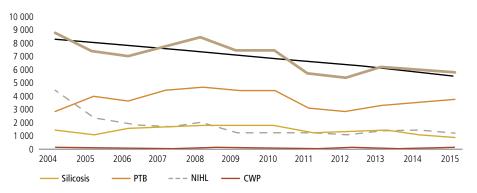
## **OCCUPATIONAL DISEASES AND TB AND HIV**

The milestones set by industry on occupational diseases are:

- Using present diagnostic techniques, no new cases of silicosis will occur among previously unexposed individuals (those who entered industry as novices in 2009).
- By December 2016, no employee's Standard Threshold Shift will exceed 25dB from the baseline when averaged at 2000, 3000 and 4000Hz in one or both ears.
- By December 2024, the TB incidence rate should be at or below the national TB incidence rate.
- 100% of employees should be offered HIV counselling and testing (HCT) annually with all eligible employees linked to an antiretroviral programme as per the national strategic plan (NSP).

Statutory reporting to the DMR though annual medical reports (AMRs) continued to increase and this is a good sign. However, the total number of employees covered in AMRs during 2015 decreased by 4% when compared to the previous year. This is most probably due to an attrition in the number of people employed in the industry.

The chart below shows the total number of diseases reported in the industry over a period of 11 years.



#### Total occupational diseases reported between 2004 and 2015

Source: Department of Mineral Resources

The total number of occupational diseases reported nationally in 2015 decreased by 1%, compared to 2014. Again, it is important to note, however, that the total number of employees reported in the AMRs for 2015 also decreased by 4% when compared to the previous year.

The statistics on occupational disease show that:

- The number of silicosis cases has been declining steadily since around 2008. There were 835 cases reported in 2015, compared with 1,063 in 2014.
- Noise-induced hearing loss (NIHL) continued to be prevalent as cases were still at levels seen in 2009.
- There were 3,773 cases of TB reported in 2015, compared to 3,460 in 2014. The overall trend however has been one of steady decline since 2008.

More mines are now reporting on TB and HIV, using the DMR 164 form as a tool. In 2015, 600 mines submitted TB and HIV data for their employees. The 600 mines represented 476,625 employees, compared to 459 mines representing 465,923 employees in 2014.

# Health continued

OPERATING ENVIRONMENT 2016 AREAS OF FOCUS

As part of Masoyise iTB, the Chamber also collects data on TB and HIV and both the DMR and Chamber data is presented.

Counselling for HIV in the industry is improving year-on-year, as seen in the graph alongside, although the milestone target of 100% has not yet been reached.

- **TB screening:** As shown in the graph alongside, TB screening improved from 81% to 89% industry-wide, as reported to the DMR and 94% of employees in Chamber member companies were screened for TB. Chamber members have set themselves a target of screening 100% of employees for TB and this target is within reach.
- **TB** incidence: From the DMR 164 form, the number of TB cases reported is collated and from that the TB incidence per 100,000 employees can be calculated. The graph alongside shows the TB incidence over three years for Chamber members in 2015.

The TB incidence in the industry is still higher than the South African national incidence of 834/100,000 and more work needs to be done to reduce the industry's TB incidence.

## **MASOYISE iTB**

The Masoyise iTB (Eliminate TB in *isiXhosa*) Project was initiated in 2015 with the primary intention of reaching out to all employees, including contractors, in the mining sector. The focus is on offering employees HCT and TB screening over a three-year period from 2016 to 2018, using 2015 as the baseline. The project has since established governance structures including steering and project committees. Sub technical task teams on data collection, small mines, contact tracing and outcomes data were also established.

A broad coalition of stakeholders has been mobilised around Masoyise iTB and several presentations were made on the initiative. A leaflet on Masoyise iTB was prepared for the International AIDS Conference in Durban in July 2016, and distributed in substantial numbers. It was used in various other forums during the year, necessitating a reprint prior to the World AIDS Day event in December.

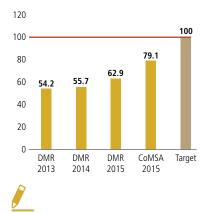
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A partnership between the Department of Health and the Chamber of Mines resulted in the establishment of a one-stop service centre in Carletonville



# Counselling for HIV in mining industry and in Chamber members

% Counselled for HIV

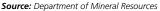


Source: Department of Mineral Resources

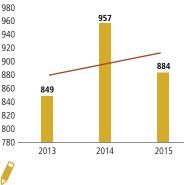
# Screening for TB in industry and in Chamber members

% Employees screened for TB





TB incidence (per 100,000) in Chamber members



Source: Department of Mineral Resources

# CHAMBER OF MINES OCCUPATIONAL HEALTH REPORTING SYSTEM

The collation and reporting of occupational diseases has been a challenge for the sector for some time. Although the DMR now produces very credible, comprehensive statistics on occupational diseases, these are only reported annually, a year after the release of safety statistics. There is no real-time publication of data.

It is the vision of the Chamber and the industry that, ultimately, real-time occupational health data will be available and published in time to inform decisions that can lead to prevention of exposures and disease. The Health Incident Report form DMR 231 gazetted in September 2014 and revised in 2016 is the basis for a more responsive reporting system as it requires monthly submissions of incidents in the form of diseases diagnosed.

The MHSC has already adopted the Occupational Health and Safety Management System (OHSMS) which is a framework for a comprehensive reporting system that also stores client records.

In 2016, the Chamber launched an electronic reporting system that included reporting for Masoyise iTB on screening for TB and HIV. The system is a major step towards electronic reporting and it makes submission of data easier for companies. HealthSource provided the platform for the system and the system is open to all companies, including non-members of the Chamber.

Within a year of its implementation, the system has proven to be successful with more than 70% of registered companies having submitted data on Masoyise iTB through the system. The Chamber continues to support members in increasing the submission rate and workshops have been held for this purpose.

The Chamber's reporting system has been developed to dovetail with that of the MHSC, once it is up and running. The ultimate aim is that it will be subsumed into an industry reporting system at the MHSC.

## SURVEY ON MORBIDITY, MORTALITY, INCAPACITY AND ABSENTEEISM

In 2015, the Chamber conducted a survey of its members, which gathered and interpreted responses on medical incapacity, chronic and occupational diseases and medical mortality of permanent employees and contractors at mines, from 2009 to 2014. The aim of the survey was to quantify and characterise the nature of the causes of morbidity and mortality in the industry.

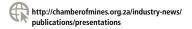
Results showed that, with the exception of TB, which has been exhibiting a downward trend since 2012, the number of employees with diabetes, hypertension and HIV was steadily increasing. Occupational diseases such as NIHL, silicosis/pneumoconiosis and occupational TB all showed a decline over the years.

From 2009 – 2014, the average overall absenteeism rates gradually increased from 15.75% in 2009 to 17.89% in 2014. Medical absenteeism rates also showed a similar increase from 5.17% in 2009 to 6.01% in 2014. Since 2009, there was a total of 8,829 deaths at the reporting mines, with the highest number of deaths occurring in 2012 at 1,804.

This was the first survey of its type and shows the need for more research to fully understand the topics that were under investigation.

It is the vision of the Chamber and the industry that, ultimately, real-time occupational health data will be available and published in time to inform decisions that can lead to prevention of exposures and disease.

A presentation on the survey can be found at:



Health continued

#### COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES

Compensation for injuries and diseases in the mining sector falls under two pieces of legislation. Compensation for injuries is administered by the DoL, through the COIDA. For most mining companies, the Rand Mutual Assurance (RMA) administers this legislation under license from DoL. The RMA runs an efficient compensation system with very few challenges.

Most of the attention of the industry has been on compensation for occupational lung diseases in mining, which is administered by the Department of Health (DoH), through the ODMWA

In January 2016, the Deputy Minister of Mineral Resources, Mr Godfrey Oliphant, formally launched a process to integrate the compensation systems in the country. A steering committee and various task teams were established and a draft final report was submitted to the Ministers of Health and Labour in October 2016. The report was noted, with the request that further work needed to be done to settle outstanding disagreements between employers and labour.

The draft final report proposed that current and future miners should be transferred to the DoL to fall under the COIDA, while ex-mineworkers would be ring-fenced under the current legislation. More work, and a final report that will lead to legislative changes, is expected in 2017.

The Ex-Mineworker Project, a long-standing collaboration between the DoH and the NUM supported a number of the activities in strengthening the Medical Bureau for Occupational Diseases/Compensation Commissioner for Occupational Diseases (MBOD/CCOD) and in providing some resourcing for the compensation integration process. Teba was contracted to locate and complete necessary claim documentation for up to 20,000 beneficiaries who were due compensation for lung disease benefits in terms of the available evidence from the investigation and such records as could be accessed. The project also financed an inbound call centre. This took the form of a call centre to take calls from ex-miners and to stream their gueries and information to the relevant officials at various institutions.

Support from the project has contributed to improvements at the MBOD/CCOD.

## **MINE HEALTH AND SAFETY COUNCIL ACTIVITIES**

The Chamber and its members participate in the MHSA to promote health and safety in the mining industry. The Chamber and other industry officials serve on its various committees, including:

- Mining Occupational Health Advisory Committee (MOHAC)
- Mining Industry TB and HIV Advisory Committee (MITHAC)
- Safety in Mines Research Advisory Committee (SIMRAC)
- Culture Transformation Advisory Committee (CTAC)

# **CASE STUDY**

#### OVERCOMING TUBERCULOSIS IN THE SOUTH AFRICAN MINING INDUSTRY

Pulmonary tuberculosis, commonly known as TB, has been endemic in South and southern Africa for many decades. In round figures, some 1% of the country's total population contracts the disease each year and, according to World Health Organisation analyses, our country has one of the world's highest incidences when measured per head of population. Some 80% of South Africans are believed to be infected by the disease, though an overwhelmingly large proportion have latent TB and are not actively affected – a situation where the TB bacillus lies dormant. The country has a particular challenge in that the disease is more likely to become active in people with compromised immune systems – for example, those suffering from untreated HIV – and in people working close to one another in dusty environments such as might be encountered in mines.

These circumstances present a significant public health challenge, a challenge exacerbated by a range of societal and causal factors such as overcrowding, poverty, poor nutrition and unhealthy working conditions. It is a health challenge that calls for nationwide interventions by all sectors of society – by government, by public and private health services, by the business community and by organised labour – if it is to be eradicated and its sufferers cured.

When Deputy President Cyril Ramaphosa launched a major anti-tuberculosis campaign in SA on World TB Day in March 2015, the country's mining sector and regions were always going to be an important part of it. That is why in December 2015 the departments of Health and of Mineral Resources, the four primary mining unions – AMCU, the NUM. Solidarity, UASA – and the Chamber of Mines launched Masoyise iTB, a major TB screening campaign in South Africa's mining sector.

The Masoyise iTB initiative is planned to run over three years from 2016-2018. The ultimate goal is to reduce TB incidence on mines and in mining regions to below the rate for the general population. Of course, it is hoped that the national campaign will also reduce TB incidence in the country as a whole in that period.

The five key targets of the Masoyise iTB initiative are:

- Every mine employee to be screened for TB each year
- Every mine employee to be offered voluntary counselling and testing for HIV each year

- Extend contact tracing into mining communities
- Support to small mines
- Support to mine contractors

The Chamber of Mines and members have for some time been at the forefront of addressing TB among mineworkers and those close to them – screening, diagnosing, treating, curing and educating sufferers, their colleagues and their families. The mining sector is a leader in these interventions. In addition, screening for TB is not just available to current employees – past mine employees are entitled to two-yearly screening provided by the Department of Health with support from the mining companies.

Looking at the bigger picture, Chamber member mines have largely converted old single-sex dormitories to single or family occupancy – a development that reduces the closeness of people at risk of contracting or being infected by TB. However, the mushrooming of crowded informal settlements in areas where economic opportunity attracts people faster than housing and other social infrastructure can be developed presents a major TB risk.

Industry data show that 94.4% of employees were screened for TB in 2015, and it is hoped that the Masoyise iTB campaign will not only increase that number but also extend this service to employees of contractors and take it into mining communities.

The Chamber has contributed significant financial and human resources to work in this sphere and the complementary work of assisting the MBOD/CCOD to work at best possible capacity. This has included:

- Donating close to R50 million to assist the MBOD to modernise and enhance the efficiency of its administrative systems
- Funding the staffing of the Carletonville One-Stop Service Centre for three years (ending in 2018) to a total of R5.6 million

For those with occupational lung diseases, TB is a compensable disease regulated by the DoH under the ODMWA through the MBOD/CCOD. Under ODMWA, TB is a compensable disease when: "in the opinion of the certification committee, it was contracted while the person concerned was performing risk work, or ...was already affected at any time within the twelve months immediately following the date on which that person performed such work for the last time."