

# Community of practice on occupational health and safety – 2021 annual tuberculosis and occupational health and safety regional response progress report meeting

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## INTRODUCTION

The tuberculosis (TB) burden in the southern African region is attributed to the high HIV prevalence and mining environment, which exposes mine workers to inhalable dust and predisposes them to occupational lung diseases (OLDs), such as silicosis. Against the background of the migratory nature of mine workers from labour-sending areas to mining communities, within and across borders, and weak occupational health and safety (OHS) regulatory systems, the Southern Africa TB and Health Systems Support (SATBHSS) project has adopted a regional multi-sectoral approach to respond to TB and OLDs. To reduce the high incidence of TB among mine workers, primary prevention has been emphasised through strengthening OHS regulatory systems and services in the project countries. The project also focuses on strengthening collaborations between the public and private sectors in the fight against TB and OLDs. The African Union Development Agency (AUDA-NEPAD) will continue supporting the region and the project countries to strengthen their capacity to offer workers occupational health and safety (OHS) services and engage the private sector for an effective and sustainable response to TB and OLDs.

The community of practice on occupational health and safety (CoP-OHS) was established in 2017 to share knowledge and experience towards solving the challenge of OLDs and TB in four project countries (Lesotho, Malawi, Mozambique, and Zambia). In an endeavour to foster and encourage a collective regional response to the scourge of TB and OHS in the region, four more member states were added, viz. Eswatini, Botswana, Tanzania, and Zimbabwe. The meeting was attended by South Africa's Department of Employment and Labour, the International Labour Organization (ILO), the International Organisation for Migration (IOM), the Southern Africa Development Community (SADC), and the World Health Organization (WHO) as key partners; they shared their expertise on issues related to TB and OHS. This CoP-OHS supports countries to i) roll out a standardised package of occupational health services and mining safety standards, and ii) strengthen mine health regulatory capacity. It is attended by TB and OHS experts from ministries of health, mines, and labour; and chambers of mines.

The main objectives of the CoP-OHS meeting were to provide technical input on the draft code of practice on OLDs, to review and advise on developing the OHS information system, to forge the alignment of regional projects such as TB in the Mining Sector (TIMS), and the United States Agency for International Aid (USAID) project on artisanal

small-scale miners (ASMs), and to discuss the proposed COVID-19/OHS workplace response plans.

## METHODOLOGY

This was a hybrid meeting, with the majority of the members attending the meeting in person at Radisson Blu hotel, Sandton, Johannesburg, South Africa. The data for the report were collected from the meeting concept note, meeting agenda, presentations, observations, and dialogues.

## MEETING CONSTITUTION

The CoP-OHS meeting was attended by 25 participants from Botswana, Eswatini, Lesotho, Malawi, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe, AUDA-NEPAD, the ILO, the WHO, and the IOM.

## OPENING REMARKS

The AUDA-NEPAD re-iterated the importance of the community of practice on CoP-OHS as a strategic vehicle to accelerate regional OHS harmonisation, innovation, knowledge sharing, and policy development. Due to the CoP-OHS impact, the membership has been extended to Botswana, Eswatini, Tanzania, and Zimbabwe, including South Africa, which has always been part of the CoP-OHS. The WHO, the IOM, and the ILO remain key strategic partners for the enhancement of OHS in the region.

Since the inception of the CoP-OHS, some of the achievements attained include the revision or development of OHS laws and regulations, implementation of a regional baseline study on mine health regulation and OHS results, development of human resources capacity in OHS, OHS systems strengthening, OHS information management system design, and many more interventions.

## Project progress and impact on strengthening OHS system in southern Africa

### Regional progress

AUDA-NEPAD has spearheaded training in several areas. Twenty-eight Malawian and Zambian medical doctors and radiologists were trained on the ILO International Classification of Radiographs of Pneumoconioses (ILO-ICRP). These doctors and radiologists have improved occupational health service deliverance, especially in remote areas. Forty-five occupational health nurses from Lesotho, Malawi, and

Mozambique were trained on the fundamentals of OHS. These trained health professionals are providing services in the countries. Seventy-one OHS inspectors from Lesotho, Malawi, and Zambia were trained on risk assessment, and practical sessions were conducted on the use of inspection equipment. The training imparted skills and knowledge that capacitated the inspectors to effectively utilise the equipment procured under the project. Thirty-five occupational hygiene professionals were trained on measurements (W501) and controls (W505) of hazardous substances in Mozambique and South Africa. In addition, AUDA-NEPAD trained more than 450 Government officials from Lesotho and Malawi on sector-specific COVID-19 workplace response and intervention measures.

The CoP-OHS provided guidance on developing a regional code of practice for the management of occupational lung diseases (CoP-OLDs). The CoP aims to guide countries to harmoniously undertake comprehensive and quality medical surveillance and manage OLDs in workplaces. It received overwhelming support from the Southern African Development Community (SADC), where several member states, such as Botswana and Namibia, have shown a keen interest in adapting it. The CoP-OLDs is a critical document to accelerate the compensation of current workers and ex-workers for OLDs. Notably, the document will assist member states to expedite the establishment of their own compensation systems.

### In-country progress

The Government of Malawi has recruited an occupational health specialist and trained more than 65 professionals on the ILO-ICRP, occupational hygiene, occupational health nurses' roles, and mine workplace inspections. The Government inaugurated four occupational health centres and purchased various occupational health diagnostic equipment. These efforts resulted in the initiation of inspections of workplaces for compliance to national standards and the training of workers on the proper use of personal protective equipment (PPE).

**Table 1. Lesotho mining industry COVID-19 statistics**

Mine	COVID-19 tests	Negative test result		Positive test result		Fatalities	
	n	n	%	n	%	n	%
Mine 1	463	451	97.4	12	2.7	2	16.7
Mine 2	3 195	3 121	97.7	74	2.4	7	9.5
Mine 3	2 175	2 128	97.8	47	2.2	1	2.1
Total	5 833	5 700	97.7	133	2.3	10	7.5

**Table 2. Regional OHSCs operational status**

Country	Current operational status
Eswatini	Two OHSCs are open with the support of internal voluntary deferred pay (VDP) and functioning on low funds after the TIMS project.
Lesotho	Three OHSCs are open and functioning, running on internal Global Fund savings from the National TB Control Program (NTP) Grant.
Mozambique	Three OHSCs are open and supported by the SATBHSS project, but face challenges regarding sustainability after the project.
Zimbabwe	Both OHSCs are closed due to lack of funds. Plans are underway to re-open them before the end of 2022, using a different funding mechanism.
Zambia	The OHSC is open and functional, and is currently being funded, month-by-month, from the fiscal budget. The sustainability of this funding is not assured. There are plans to incorporate the OHSC budget into the fiscal budget permanently.
Namibia	The OHSC is open and functional, but not 'as usual'. It is now being used to provide spill-over primary healthcare services from the nearby health service centre.
Botswana	The OHSC is open and functional as usual. It is currently being funded month-by-month from the fiscal budget. There are plans to incorporate the OHSC budget into the fiscal budget permanently.
Tanzania	The static OHSC is open and functional as usual. The mobile OHSC is closed and non-functional.
Malawi	Four OHSCs are being established in Government hospitals.

In Zambia, the focus was on the development of occupational health and hygiene standard operating procedures. The country trained 83 professionals on the ILO-ICRP, and completed the renovation of the Solwezi occupational clinic, which is now operational. Most (80%) of the total inhalable dust samples in the mines were compliant with the set occupational exposure limit (OEL) of 3 mg/m<sup>3</sup>. Finally, the Government of Zambia has reviewed several OHS laws and Regulations to harmonise them to international best practices and standards, and to remove the clause restricting former TB patients from working in mines.

In Lesotho, all operational mines have been inspected twice. The programme realised an overwhelming increase in compliance following OHS training, supported by the provision of PPE, occupational hygiene monitoring, and appointment of safety, health and environment (SHE) officers. More than 400 workers were trained from various Ministries and Government entities, including the Ministries of Labour and Mines. The impact of that training has been published elsewhere,<sup>1</sup> but the training ignited public-private sector engagement and resulted in the reporting of COVID-19 statistics. The mining industry had a 2.3% positivity rate, and a 7.5% death rate (Table 1).

In Mozambique, all the established occupational health service centres (OHSCs) are operational and funded through the SATBHSS project. More than 50% of the 116 mines were inspected, 70% of which complied with OHS regulations.

### Strengthening occupational health services in Africa

AUDA-NEPAD presented on the status of the OHSCs in southern Africa, which were initially designed to provide TB screening and diagnosis services, HIV testing, silicosis screening and diagnosis, and linking of ex-mine workers to compensation funds. These are meant to unlock significant compensation funds for ex-mine workers in South Africa, Lesotho, Malawi, Botswana, Mozambique, and Eswatini for TB and other lung diseases. Through the Global Fund, the region established 11 OHSCs: two each in Eswatini, Mozambique, and Lesotho, and one each in Namibia, Zambia, Tanzania, Botswana, and Zimbabwe. Table 2 summarises the operational status of OHSCs in each country.

Drawing lessons from the TIMS and SATBHSS projects on OHSCs, AUDA-NEPAD, the Tshiamiso Trust, and the Medical Bureau for Occupational Diseases (MBOD) held a meeting to develop a sustainable ideal OHSC blueprint in Cape Town, South Africa. The ideal OHSC blueprint aims to provide guidance and support for the implementation of fully fledged sustainable, OHSCs in various African Union (AU) member states.

### Forging the future for the Centre of Excellence on OHS

The Centre of Excellence on Occupational Health and Safety (CoE-OHS), through technical support from AUDA-NEPAD and partners, developed an ILO-ICRP curriculum. The curriculum aims to provide a stepwise approach and simple, reproducible training in systematically describing and recording radiographic abnormalities, provoked by the inhalation of dust. The approach follows the standardised reading of chest X-rays for silicosis. The first training will be held in Kitwe, Zambia, where the CoE will host trainees from Malawi.

The Centre has upgraded its ICT infrastructure and installed an Extension for Community Healthcare Outcomes (ECHO) platform, which links hospitals to the OHS specialist physicians for X-ray interpretations and clinical meetings. The CoE, with technical support from AUDA-NEPAD, established the Regional Experts Advisory Panel (REAP), the details of which are published elsewhere.<sup>2</sup>

### Alignment with other regional projects on TB and OLDs

The Government of Zimbabwe is implementing an artisanal small-scale mining TB and silicosis project, titled the Kunda-Nqob'iTB project, which is funded by the USAID. The project focuses on eight priority districts with high artisanal mining activities, high TB disease burden, and poor TB treatment outcomes. To date, more than 500 officers have been trained within the project on the ILO-ICRP, including occupational health nurses, environmental health practitioners, and district TB officers. The results of the project show a high prevalence of TB, silicosis, and HIV among ASMs at two occupational health clinics. Sixty-four of 2 473 ASMs screened through outreach campaigns (2.6%) were diagnosed with TB, and 393 (15.9%) with silicosis.<sup>3</sup>

### Progress on OHS policy reforms (policies, laws, regulations and guidelines) and sharing of best practices

The sustainability of all the regional investments in eradicating silicosis, TB and other OLDs hinges on a comprehensive OHS legal framework. It was acknowledged that some laws are outdated, fragmented, unenforceable, and not aligned with international best practices and standards. Member states have successfully reviewed and developed relevant Acts and Regulations. Countries faced challenges due to protracted reform processes and procedures in passing the revised laws. The delay in progress has negatively impacted OHS service delivery. AUDA-NEPAD will engage key stakeholders, including parliamentarians and policy makers, to facilitate the quick review and approval of legislation.

The Government of South Africa has been exceptional with regard to legal reforms as it successfully developed and revised its OHS laws. The Department of Employment and Labour has developed and/or revised the following Regulations under the Occupational Health and Safety Act: Ergonomics; Facilities; Hazardous Biological Agents; Asbestos Abatement; Lift Escalators and Passenger Conveyors; Electrical Installation; Electrical Machinery; Pressure Equipment;

Commercial Diving; General Administrative; General Safety; Health and Safety of Children at Work; Construction; and Driven Machinery. The Department is revising the Environmental Regulations for Workplaces Regulations and the Noise-Induced Hearing Loss Regulations.

### AU-Occupational safety and health information system

Problems related to the information management system continue to affect the project and need to be resolved. AUDA-NEPAD is engaging with stakeholders (country, regional and global) to develop an information system that will generate the data needed to inform policy. The Cross Border Referral System (CBRS) is a tool developed, under the TIMS project, for the management of patients across borders. Personnel in the participating countries have been trained on its use. Personnel from Eswatini, Lesotho, Mozambique, and Zimbabwe were trained in November 2020, while those from Botswana, Namibia, South Africa, and Zambia were trained in May 2021. The IOM informed the meeting on data management for occupational health screening, as well as TB/HIV outreach services, for Mozambican miners and migrant workers working in South Africa; screening is now mandatory.

### CONCLUSION

The CoP-OHS is a critical technical working group aimed at harmonising and collating all regional occupational TB and OHS activities. It provides a platform for countries to share lessons learned and best practices. The meeting focused on public sector initiatives; however, there is a need to include private sector initiatives such as the Minerals Council South Africa's Masoyise iTB and Women in Mining (WiMSA) projects, and the Mine Health and Safety Council's Centre of Excellence.

### ACKNOWLEDGEMENTS

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### REFERENCES

1. Elimi IO, Khoza N, Myeni S, Chamdimba C. Workplace COVID-19 follow-up risk assessment in the Kingdom of Lesotho: control interventions, challenges and lessons learned. *Occup Health Southern Afr*. 2021; 27(6):210-212.
2. Khoza N, Moiloa N, Mafwenko C, Chamdimba C. Regional Centre of Excellence on Occupational Health and Safety – induction of the Regional Expert Advisory Panel (REAP). *Occup Health Southern Afr*. 2022; 28(3):104-108.
3. Moyo M, Zishiri C, Ncube R, Madziva G, Sandy C, Mhene R, et al. Tuberculosis and silicosis burden in artisanal and small-scale gold miners in a large occupational health outreach programme in Zimbabwe. *Int J Environ Res Public Health*. 2021; 18(21). doi: 10.3390/ijerph182111031.