Masoyise Health Program Annual Report 2025

Authors:

Monique Muhali

Molebogeng Malotle

Hlologelo Ramatsoma

Nisha Naicker

Muzimkhulu Zungu

Corresponding author:

Prof Muzimkhulu Zungu

National Institute for Occupational Health

National Health Laboratory Service

muzimkhuluz@nioh.ac.za

0828800961

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
CD	Communicable Disease
CoE	Centre of Excellence
DBT	Diabetes
DMPR	Department of Mineral and Petroleum Resources
DoH	Department of Health
GDP	Gross Domestic Product
HCT	HIV Counselling and Testing
HPT	Hypertension
HIMS	Minerals Council Health Information Management System
HIV	Human Immunodeficiency Virus
ILO	International Labour Organization
IPT	Isoniazid Preventive Therapy
LMICs	Low-and-Middle-Income Countries
MHP	Masoyise Health Programme
MHSA	Mine Health and Safety Act
MHSI	Mine Health and Safety Inspectorate
MHSC	Mine Health and Safety Council
MOSH	Mining Industry Occupational Safety and Health
NSP	National Strategic Plan
NCD	Non-communicable Disease
SA	South Africa
SAMI	South African Mining Industry

SSA	Sub-Saharan Africa
SDG	Sustainable Development Goal
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV and AIDS
WHO	World Health Organization

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Executive Summary

The Masoyise Health Programme (MHP), led by the Minerals Council South Africa (Minerals Council), continues to play a central role in strengthening occupational health programmes within the South African Mining Industry (SAMI). Through integrated screening, surveillance, prevention, treatment, and reporting initiatives, the programme supports the monitoring and management of communicable diseases, non-communicable diseases, mental health conditions, and occupational diseases among mineworkers.

This report presents an analysis of routinely collected MHP data submitted to the Minerals Council Health Information Management System (HIMS) for the 2025 reporting period and evaluates progress towards key MHP, Mine Health and Safety Council (MHSC), and global health targets.

The findings demonstrate continued improvement in MHP participation and reporting conformance. In 2025, a total of 299 companies submitted data to the Minerals Council HIMS, representing the highest level of participation recorded over the five-year reporting period. Similarly, workforce representation within the system increased to 422 009 mineworkers, reflecting strengthened MHP coverage and improved reporting completeness across the SAMI. Reporting conformance also improved substantially, with 97.6% of expected reports submitted in 2025.

Strong performance was observed across several HIV and TB MHP indicators. HIV testing coverage increased steadily over the reporting period, while the proportion of mineworkers testing HIV positive continued to decline. Antiretroviral therapy (ART) initiation among newly diagnosed HIV-positive mineworkers improved in 2025, although coverage remained below MHP targets. Viral suppression among mineworkers receiving ART remained below the UNAIDS 95-95-95 targets, indicating ongoing opportunities to strengthen adherence support and continuity of care.

TB screening coverage remained high throughout the reporting period, with 88.4% of mineworkers screened in 2025. The overall TB notification rate among mineworkers remained lower than the reported South African national TB notification rate. Treatment initiation and treatment outcomes among mineworkers diagnosed with TB demonstrated particularly strong programme performance, with 95.3% of diagnosed mineworkers initiated on treatment and a treatment success rate of 95.5%, substantially exceeding the South African national treatment success rate. High ART coverage among mineworkers co-infected with TB and HIV further reflected the strengthened integration of HIV and TB services within the MHP.

Significant progress was also observed across non-communicable diseases (NCD) and mental health MHP indicators. Screening coverage for hypertension, diabetes, obesity, and cholesterol remained high overall, with substantial improvements observed in cholesterol screening coverage in 2025. Mental health screening coverage and linkage to care also improved, reflecting growing integration of mental health services into occupational health and wellness programmes within the SAMI. In occupational medicine programmes, encouraging progress continued towards the elimination of occupational lung diseases among novice workers, with no new cases of coal workers' pneumoconiosis reported among novice workers during the reporting period.

Largely, the findings demonstrate the growing maturity and impact of the MHP as a coordinated industry-wide occupational health initiative. Through sustained collaboration between mining companies, organised labour, government departments, and other relevant stakeholders, the MHP continues to contribute meaningfully towards improved worker health outcomes, strengthened occupational health systems, and the advancement of safer, healthier, and more sustainable working environments within the SAMI.

1. Introduction

The global mining industry remains a cornerstone of economic development, sustaining industrialisation, expansion of infrastructure, and the transition to low-carbon economies.[1] Across high-, low-, and middle-income countries (LMICs), mining contributes substantially to national gross domestic product (GDP), export earnings, and employment.[2] In developed economies such as Australia and Canada, the sector is characterised by high levels of mechanisation, strong regulatory frameworks, and comparatively lower occupational disease burdens.[3,4] In contrast, in LMICs, including those in Sub-Saharan Africa (SSA), mining continues to play a dual role as both an economic driver and a setting of heightened occupational and public health risk.[5]

Globally, mining contributes significantly to employment, supporting millions of direct and indirect jobs across value chains.[4] In resource-dependent economies, the sector often represents a critical source of livelihoods, particularly in rural and peri-urban areas where alternative employment opportunities may be limited. [5] In SSA, mining contributes between 10% and 25% of GDP in several countries, while also generating substantial fiscal revenues through taxation. [6] However, the benefits of mining are unevenly distributed, and in many LMICs, the sector is associated with persistent inequalities, precarious labour conditions, and significant health vulnerabilities among workers.[7,8]

In South Africa (SA), mining continues to be a key pillar of the national economy [9], accounting for 5.8% of the total GDP for 2025. [10] Despite structural shifts and declining employment over the past decades, the sector remains a major contributor to GDP, exports, and job creation.[9] Recent labour market data indicate that SA's unemployment rate remains critically high, exceeding 32% in 2025, with even higher rates among youth.[11] Within this context, the mining industry plays a vital socio-economic role, employing approximately 472,000 workers and supporting the livelihoods of millions of dependents.[12] Beyond direct employment, mining contributes significantly to local economic development through procurement, infrastructure investment, and community development initiatives.[9,13]

However, the economic contributions of the mining sector must be understood alongside the substantial health risks faced by mineworkers.[13,14] Mining is inherently hazardous, exposing workers to a range of occupational, environmental, and psychosocial risks with lifelong health implications.[14] In LMIC settings, including SA, these risks are exacerbated by broader social determinants of health, including poverty, migratory labour systems, overcrowded living conditions, and limited access to quality healthcare services.[15]

Mineworkers in SA experience a disproportionate burden of communicable and non-communicable diseases, reflecting the country's broader quadruple burden of disease.[16] However, the intersecting epidemics of Human Immunodeficiency Virus (HIV) and Tuberculosis (TB) remain of particular concern. SA has the largest HIV epidemic globally, with approximately 7.8 million people living with HIV, and continues to rank among the highest TB burden countries worldwide.[17,18] In the mining sector, the risk of TB is significantly elevated due to occupational exposure to silica dust, which increases susceptibility to pulmonary disease,[19], as well as the high prevalence of HIV in mining communities.[20] The cyclical migratory labour system further facilitates the transmission of both HIV and TB between mining areas and workers' labour-sending communities, reinforcing the role of mining as a significant driver of regional epidemics.[21]

Despite these challenges, the South African Mining Industry (SAMI) has implemented several interventions aimed at reducing the burden of TB and improving mineworker health outcomes, including strengthened occupational health services, annual TB screening and HIV counselling and testing programmes, occupational hygiene controls, and the implementation of the Masoyise Health Programme (MHP).[22,23] In an analysis of TB trends in the SAMI, Zungu et al. demonstrated that TB notification rates declined more rapidly than those in the general population following implementation of industry-led initiatives.[24]

In addition to communicable diseases (CDs), non-communicable diseases (NCDs) represent a growing challenge within the mining workforce.[15] Globally, NCDs account for approximately 74% of all deaths, with a disproportionate burden borne by LMICs.[25] In South Africa, rising rates of hypertension (HPT), diabetes (DBT), cardiovascular disease, and chronic respiratory conditions are increasingly observed among working-age populations, including mineworkers.[26] Occupational exposures, including dust, noise, and physically demanding labour, intersect with behavioural risk factors such as tobacco use, harmful alcohol consumption, poor nutrition, and physical inactivity to exacerbate NCD risk.[27,28]

Occupational lung diseases, including silicosis and coal workers' pneumoconiosis, [29], continue to present important occupational health challenges within the SAMI.[30,31] Mineworkers remain exposed to occupational hazards such as respirable crystalline silica dust, coal dust and excessive noise levels, which contribute to the development of these conditions.[30] The SAMI has, however, made considerable efforts to strengthen occupational health prevention and surveillance systems, again, through initiatives such as the MHP.[22,23] Over successive reporting periods, the programme has supported disease monitoring, strengthened reporting systems, promoted industry-wide milestones, and facilitated the sharing of best practices to improve worker health outcomes. Annual reports from the MHP further demonstrate ongoing

efforts to strengthen occupational hygiene controls, disease surveillance, health promotion and access to screening and treatment services across the mining sector.[30-32]

Mental health has emerged as a critical, yet often under-recognised, element of mineworker health. The demanding and hazardous nature of mining work, combined with long working hours, job insecurity, and social isolation associated with migratory labour patterns, contributes to elevated levels of stress, anxiety, depression, and substance use disorders.[28] These mental health challenges not only affect individual well-being but also have implications for workplace safety, productivity, and ultimately overall organisational performance. Thus, increasing attention has also been directed towards mental health within the SAMI, through initiatives such as the MHP and DMPR guidance frameworks promoting mental health screening, referral systems, and linkage to care as part of integrated mineworker wellness programmes. [22,23,35]

The health of mineworkers is inextricably linked to broader social, economic, and policy environments. The social determinants of health, including working conditions, income, housing, access to healthcare, and social protection, play a central role in shaping health outcomes in this population.[36,37] Addressing mineworker health requires a comprehensive, multisectoral approach that integrates occupational health, public health, and social policy interventions.

At a global level, efforts to improve worker health and well-being are guided by several strategic frameworks. The Joint United Nations Programme on HIV/AIDS (UNAIDS) Global AIDS Strategy (2021-2026) emphasises the importance of reducing inequalities and achieving the 95-95-95 targets to end AIDS as a public health threat.[17] Similarly, the World Health Organization's (WHO) End TB Strategy aims to reduce TB incidence and mortality through early detection, treatment, and prevention.[38] These frameworks are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 8 (Decent Work and Economic Growth), which emphasise the interdependence of health, employment, and economic development.[39]

The International Labour Organization's (ILO) Decent Work Agenda further reinforces the importance of ensuring safe, healthy, and productive working conditions for all workers.[40] Central to this agenda is the recognition that decent work encompasses not only employment opportunities but also rights at work, social protection, and social dialogue.[40] Within the mining sector, achieving decent work requires sustained efforts to eliminate occupational hazards, prevent disease, and promote worker well-being.

In SA, the right to a safe and healthy working environment is enshrined in national legislation and policy frameworks. The Constitution of the Republic of SA guarantees the right to an environment that is not harmful to health or well-being,[41], while the Mine Health and Safety Act (MHSA) mandates employers to ensure the health and safety of mineworkers through the implementation of comprehensive risk management and occupational health programmes.[42] Furthermore, national policies such as the National Strategic Plan (NSP) for HIV, TB and STIs (2023-2028)[43] and the National Strategic Plan for the Prevention and Control of Non-Communicable Diseases (2022-2027)[44] provide a framework for addressing the country's major health challenges in an integrated manner.

In the mining sector, the Department of Mineral and Petroleum Resources (DMPR), through the Mine Health and Safety Inspectorate (MHSI), has additionally developed several industry-specific reporting systems, guidance notes and monitoring tools to strengthen occupational health management and surveillance.[45,46] These include the DMR 164 reporting system for HIV and TB programme monitoring,[47], annual MHSI reporting mechanisms,[45], and guidance notes addressing the management and control of HIV, TB, non-communicable diseases and other emerging occupational health priorities within the SAMI.[35,48–50] Furthermore, the Mine Health and Safety Council (MHSC) milestones provide an important framework for monitoring progress towards the elimination of occupational diseases, monitoring NCDs, and the strengthening of HIV and TB programme performance within the SAMI.[51]

The Masoyise Health Programme (MHP),[22], led by the Minerals Council South Africa (Minerals Council), thus represents a coordinated industry response to the health challenges facing mineworkers. The MHP is a comprehensive, data-driven initiative that aims to reduce the burden of HIV, TB, non-communicable diseases, and occupational illnesses within the mining sector. By promoting routine screening, early diagnosis, linkage to care, and continuous monitoring of health indicators, the programme seeks to improve health outcomes while supporting productivity and sustainability within the industry.

Importantly, the MHP aligns with both national and international targets, including the UNAIDS 95-95-95 targets, the WHO End TB Strategy, and the SDGs. The programme also reflects the principles of the ILO Decent Work Agenda by prioritising worker health, safety, and well-being as fundamental components of sustainable economic development. Through collaboration between mining companies, government departments, organised labour, and research institutions, the MHP embodies a multisectoral approach to occupational and public health.

This report presents an analysis of the MHP's performance for the 2025 reporting period, providing insights into progress towards key health targets and identifying gaps and

opportunities to strengthen interventions. In so doing, it contributes to the broader goal of advancing worker health, promoting decent work, and supporting sustainable development within the South African mining sector.

2. Objectives

- To contribute to improved monitoring of HIV, TB, NCD, Mental health, and Occupational Medicine conformance indicators within the South African mining sector through the analysis of trends from 2021 to 2025.
- To strengthen the completeness and quality of MHP reporting among Minerals Council member companies by identifying reporting gaps and areas requiring targeted intervention.

3. Methods

3.1. Study Design and Study Population

Routinely collected data from the MHP, covering the period 1 January to 31 December 2025, were retrospectively analysed using a cross-sectional approach to evaluate programme performance among member companies of the Minerals Council. The data captures significant health and wellness indicators routinely collected among mineworkers as part of programme implementation, and includes indicators related to HIV, TB, NCDs, including mental health, and occupational medicine.

3.2. Data Extraction

Data used for this report were extracted from the Minerals Council Health Information Management System (HIMS) database on the 19th of May 2026, and reflect the performance of the industry and individual commodities for the reporting period 1 January 2025 to 31 December 2025. The dataset comprised aggregated company-level data on key MHP indicators submitted through routine programme reporting processes.

3.3. Data Analysis

Data analysis focused on key MHP indicators across four programme areas: HIV, TB, NCDs, Mental health and occupational medicine. Indicators are presented as counts, proportions, and rates, with the total number of mineworkers reported by participating companies used as the denominator for the specified year-end period. Performance was assessed against established MHP targets as per the *Masoyise Health Programme Strategy: Fourth Term 2025–2030*, in addition to relevant national guidelines and global benchmarks.

Data analysis was conducted using Microsoft Office Excel 2016.

In addition, trend analysis was conducted to compare 2025 performance with data from previous reporting periods (2023-2025), in order to assess changes over time.

4. Results

Table 1 summarises selected global, national, and programme-specific targets relevant to HIV, TB, NCDs, Mental health, and Occupational Medicine within the SAMI.

Table 1: Summary of global, national, and programme-specific targets and 2025 performance indicators

Framework	Indicator	Target	2025 Performance (%)
WHO End TB Strategy	TB treatment coverage	90% of TB cases treated	95.3
	TB treatment success	90% treatment success	95.5
	TB preventive therapy	90% Preventive treatment coverage (IPT)	38.2
UNAIDS Global AIDS Strategy (95-95-95)	HIV diagnosis	95% of people living with HIV know their status	76.5
	ART coverage	95% of those diagnosed are initiated on ART	54.8
	Viral suppression	95% of those on ART have to be virally suppressed	67.0
MHSC 2024 Milestones	HCT	95% of mineworkers undergo annual HCT	87.9
	Linkage to ART	100% of newly diagnosed positive cases initiated on ART	54.8
	*TB incidence	*By 2034, TB incidence among mineworkers to be below the national incidence rate	*173 per 100 000
	NCDs	100% of mineworkers to undergo screening for metabolic risk factors	HPT: 88.1 DBT: 89.7 Obesity: 88.8 Cholesterol: 72.5
	Mental Health	95% of mineworkers to undergo screening for mental health challenges 100% of screened mineworkers with mental health challenges to be linked to care	78.1 80.7
	Occupational lung disease	Elimination of new cases of silicosis and coal workers' pneumoconiosis among	0 cases reported

		previously unexposed individuals	
MHP 2030 Targets	HCT	95% of mineworkers receive annual HCT	87.9
	TB screening	95% of mineworkers undergo annual TB screening	88.4
	Hypertension	100% of mineworkers to undergo screening for hypertension	88.1
	Diabetes	100% of mineworkers to undergo screening for diabetes	89.7
	Obesity	100% of mineworkers to undergo obesity screening	88.8
	Cholesterol	100% of mineworkers to undergo cholesterol screening	72.5
	Mental Health	100% of mineworkers to undergo screening for mental health challenges	78.1

* Reported values reflect TB notification rates and not WHO-estimated TB incidence rates, requiring complex formulae

4.1. Conformance with Masoyise reporting requirements

In 2025, a total of 299 companies registered and reported their health data to the Minerals Council HIMS, representing the highest number recorded over the five-year period. This reflects a steady upward trend in HIMS registration, with an increase of 19 mines from 2021 to 2025, including a rise of 10 from 2024 (n=289) to 2025 (n=299) (Figure 1).

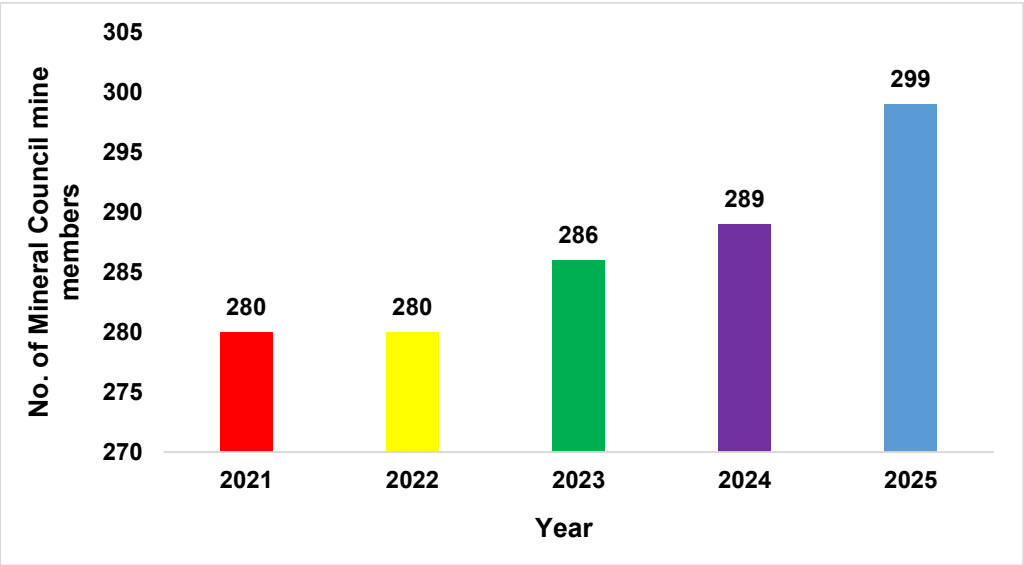


Figure 1: Number of companies registered on the Minerals Council HIMS, 2021-2025

The number of mineworkers represented in the Minerals Council HIMS increased steadily from 365 853 in 2021 to 422 009 in 2025, representing the highest number of mineworkers reported over the five-year period (Figure 2). This reflects a sustained upward trend in workforce representation within the MHP over time.

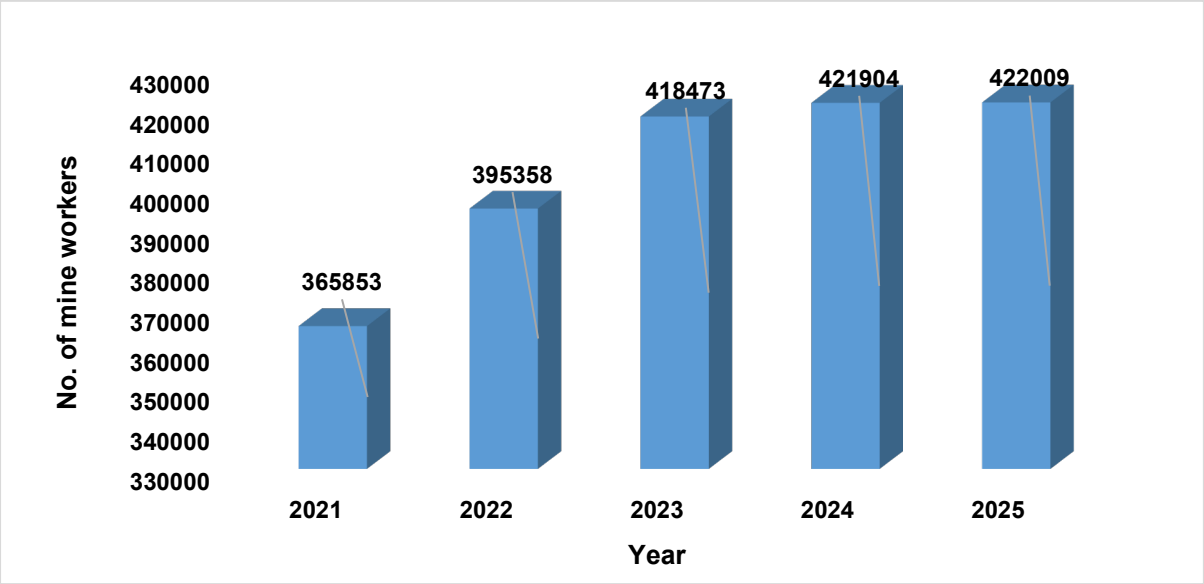


Figure 2: Number of mineworkers represented in the Minerals Council HIMS, 2021-2025

The proportion of MHP reports submitted increased steadily over the reporting period, rising from 90.4% in 2023 to 93.8% in 2024, and further to 97.6% in 2025, representing the highest level of reporting completeness observed during the reporting period (Figure 3).

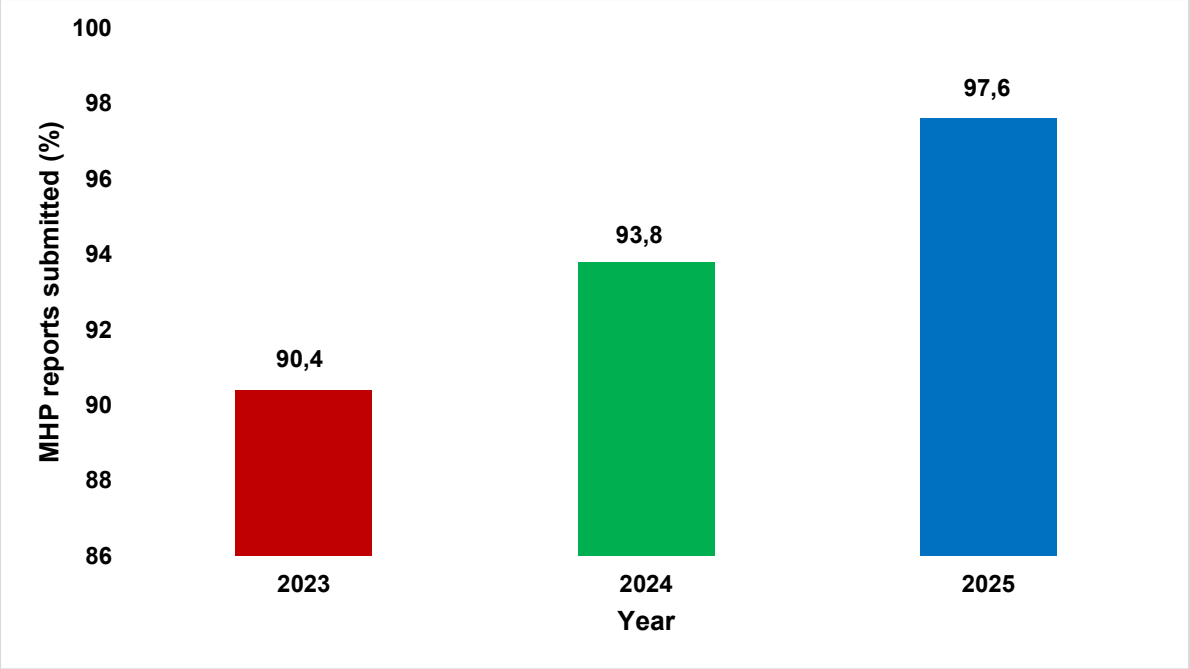


Figure 3: Percentage of MHP reports submitted, 2023-2025

The number of expected reports remained relatively stable over the reporting period, with 336 reports expected in both 2023 and 2025, and 340 in 2024. The number of finalised reports increased from 304 (90.4%) in 2023 to 319 (93.8%) in 2024, and further to 328 (97.6%) in 2025. Pending reports declined from 8 (2.4%) in 2023 to 5 (1.5%) in 2024, before increasing slightly to 7 (2.1%) in 2025. In contrast, unaccounted reports decreased substantially from 24 (7.1%) in 2023 to 16 (4.7%) in 2024, and further to 1 (0.3%) in 2025, reflecting marked improvement in reporting completeness and accountability over time (Figure 4).

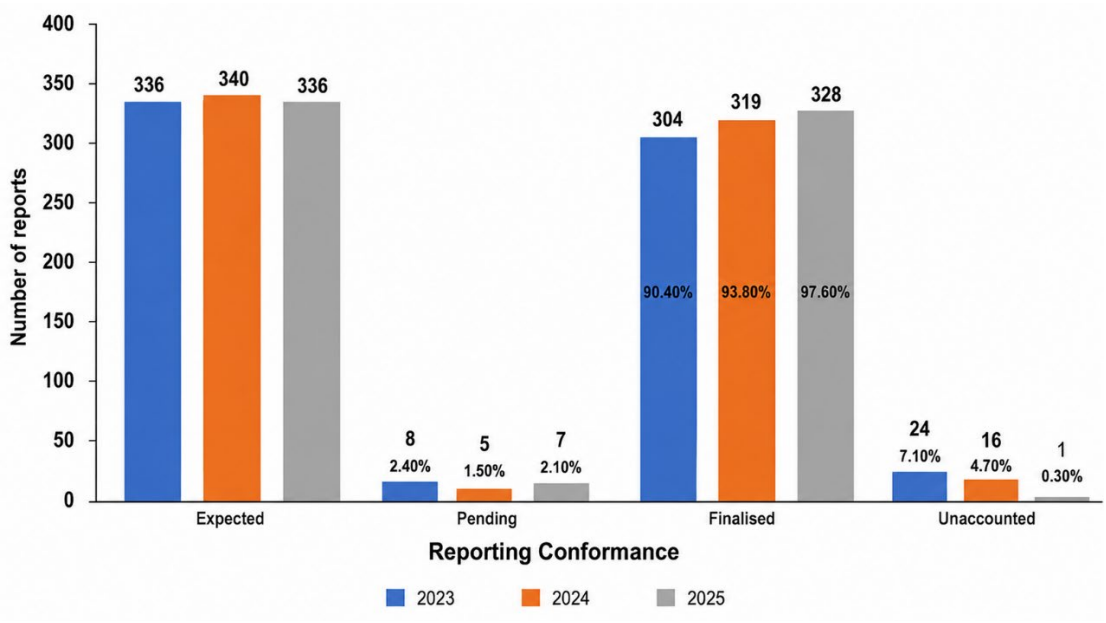


Figure 4: Status of Minerals Council HIMS reports submitted, 2023-2025

4.2. Performance of screening programmes

As presented in Table 2, HCT coverage among mineworkers declined from 93.1% in 2023 to 81.6% in 2024, before improving to 90.8% in 2025, approaching both the MHSC milestone and MHP target for annual HCT coverage. Similarly, HIV counselling coverage declined from 91.4% in 2023 to 81.6% in 2024, before increasing to 87.9% in 2025. HIV testing coverage improved steadily over the reporting period, increasing from 62.7% in 2023 to 76.5% in 2025. ART initiation among newly diagnosed HIV-positive mineworkers improved from 43.1% in 2024 to 54.8% in 2025, although this remained below the programme target of 95% linkage to ART.

TB screening coverage declined from 92.7% in 2023 to 85.6% in 2024, before increasing to 88.4% in 2025. Similarly, the TB notification rate declined from 229 per 100 000 mineworkers in 2023 to 162 per 100 000 in 2024, before increasing slightly to 173 per 100 000 mineworkers in 2025, remaining below the South African national TB incidence rate (Table 2).

Table 2: HCT, ART initiation, and TB Screening Performance among Mineworkers, Minerals Council HIMS, 2023-2025

Activity	**MHSC 2024 Milestones**	**MHP 2030 Target**	**2023 N = (418 473)**	**2024 N = (421 904)**	**2025 N= (422 009)**
			n (%)	**n (%)**	**n (%)**
HCT and HIV Treatment	95% of mineworkers offered HCT	95% of mineworkers offered HCT annually	389 816 (93.1)	344 173 (81.6)	383 012 (90.8)
		95% of mineworkers counselled for HIV annually	382 362 (91.4)	336 932 (81.6)	336 532 (87.9)
		95% of mineworkers tested for HIV annually	239 654 (62.7)	253 369 (75.2)	257 343 (76.5)

	100% of newly diagnosed positive cases initiated on ART	95% of newly diagnosed HIV-positive mineworkers initiated on ART	4 600 (44.3)	3 351 (43.1)	2910 (54.8)
TB screening		95% of mineworkers screened for TB annually	387 992 (92.7)	361 023 (85.6)	372 962 (88.4)
	By 2034, TB incidence rate below the national incidence rate	TB incidence rate below the national incidence rate, with a 5% year-on-year reduction	** 229 per 100 000 mineworkers	** 162 per 100 000 mineworkers	** 173 per 100 000 mineworkers

** Reported values reflect TB notification rates and not WHO-estimated TB incidence rates, requiring complex formulae

4.3. HIV Programme indicators

In 2025, 87.9% of mineworkers were counselled for HIV, reflecting a decline from 98.1% in 2023 and 97.9% in 2024. HIV testing coverage increased steadily over the reporting period, from 62.7% in 2023 to 76.5% in 2025. The proportion of mineworkers testing HIV positive continued to decline, from 4.3% in 2023 to 2.1% in 2025 (Table 3). Among those testing HIV positive, ART initiation improved from 43.1% in 2024 to 54.8% in 2025. The number of mineworkers living with HIV and on ART declined slightly over the reporting period, while viral suppression among those on ART declined from 75.6% in 2023 to 67.0% in 2025. In contrast, the proportion of HIV-positive mineworkers receiving IPT increased substantially from 15.5% in 2024 to 38.2% in 2025 (Table 3).

Table 3: HIV Programme indicators among mineworkers, Minerals Council HIMS, 2023-2025

Indicator	MHSC 2024 Milestones	MHP 2030 Target	2023 N= 418 473		2024 N= 421 904		2025 N= 422 009	
		%	n	%	n	%		
Mineworkers counselled for HIV	95	95	382 362	98.1	336 932	97.9	336 532	87.9
Mineworkers tested for HIV	95	95	239 654	62.7	253 369	75.2	257 343	76.5
Mineworkers who tested HIV positive	0	0	10 378	4.3	7 778	3.1	5314	2.1
Mineworkers Initiated on ART	100	95	4 600	44.3	3 351	43.1	2910	54.8
HIV positive on ART with viral suppression	N/A	95	39 081	75.6	35 523	70.0	33 645	67.0
HIV positive and on IPT	N/A	95	16	0.0	8013	15.5	2518	38.2

4.4. TB Programme performance

TB Screening

TB screening coverage increased from 72.7% in 2021 to a peak of 92.7% in 2023, before declining to 85.6% in 2024 and increasing slightly to 88.4% in 2025 (Figure 5).

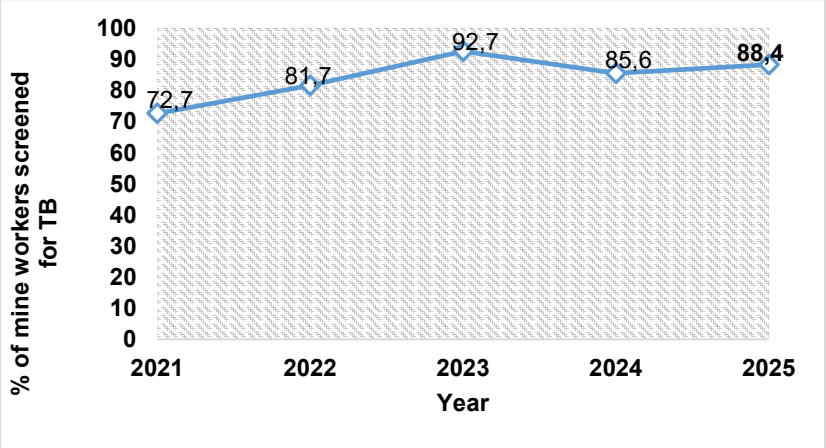


Figure 5: Trends in the Percentage of mineworkers screened for TB, Minerals Council HIMS, 2021-2025

As illustrated in Figure 6, TB screening coverage declined from 387 992 (92.7%) mineworkers screened in 2023 to 361 023 (85.6%) in 2024, before increasing to 372 962 (88.4%) in 2025. Among mineworkers screened for TB, the proportion subjected to further TB investigations declined progressively from 98.2% in 2023 to 83.9% in 2024 and 79.3% in 2025, corresponding to 14 448 mineworkers investigated in 2025.

Similarly, the proportion of mineworkers diagnosed with TB declined from 11.5% in 2023 to 5.0% in 2025, representing 729 mineworkers diagnosed with TB in 2025 (Figure 6). Despite these declines, treatment initiation among mineworkers diagnosed with TB remained consistently high throughout the reporting period, ranging from 95.3% to 96.6%. In 2025, 694 (95.3%) mineworkers diagnosed with TB were initiated on TB treatment (Figure 6).

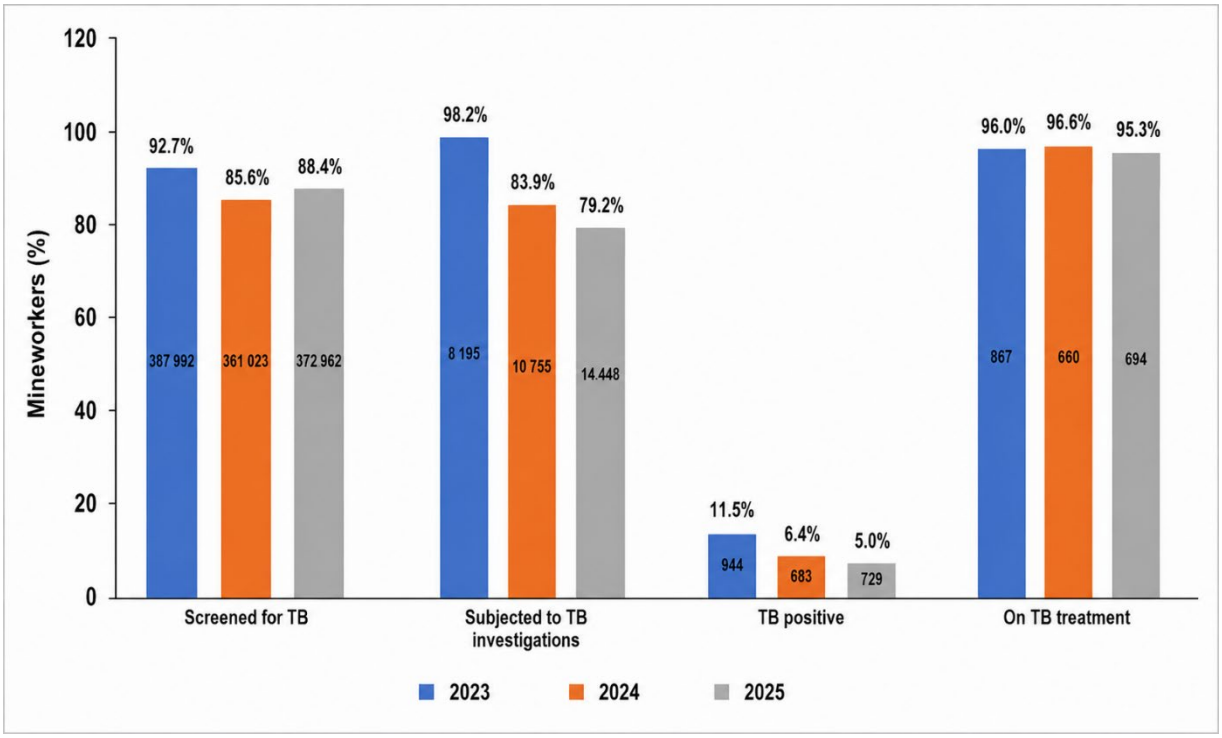


Figure 6: TB screening and Treatment cascade among mineworkers, Minerals Council HIMS, 2023-2025

TB Treatment Outcomes

Table 4 summarises TB treatment outcomes among mineworkers receiving TB treatment in 2024. Of the 782 mineworkers diagnosed with TB, 774 (99.0%) were initiated on treatment. Overall treatment success was achieved among 739 mineworkers, corresponding to a

treatment success rate of 95.5%, which exceeded the South African national treatment success rate of 71%.

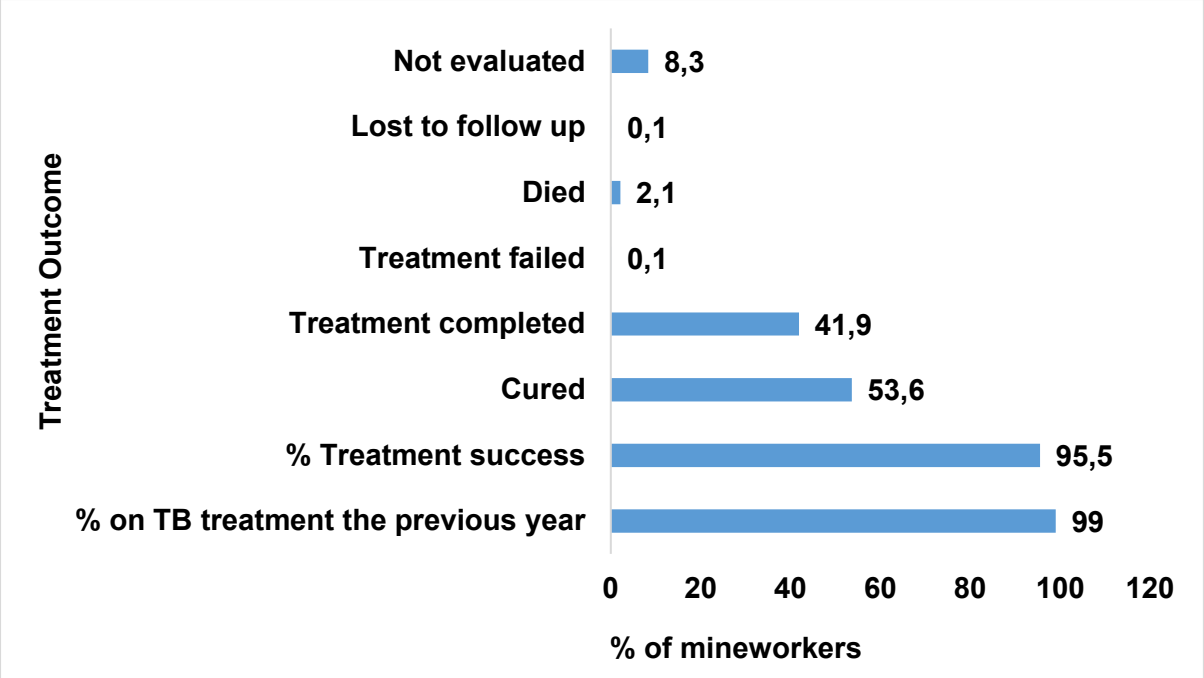
Among mineworkers with successful treatment outcomes, 415 (53.6%) were classified as cured, while 324 (41.9%) completed treatment. Poor treatment outcomes were infrequently reported, with 16 (2.1%) mineworkers recorded as having died, and only 1 (0.1%) case each reported for treatment failure and loss to follow-up. A total of 64 (8.3%) treatment outcomes were classified as not evaluated (Table 4).

Table 4: TB Treatment Outcomes among Mineworkers, Minerals Council HIMS, 2024

TB Treatment Outcome	**2023** **South Africa (%)**	**TB cases (n= 782)** **2024** **n**	**%**
Initiated on treatment	**79**	**774**	**99.0**
Treatment success	**71**	**739**	**95.5**
Cured		**415**	**53.6**
Treatment completed		**324**	**41.9**
Treatment failed		**1**	**0.1**
Died		**16**	**2.1**
Lost to follow up		**1**	**0.1**
Not evaluated		**64**	**8.3**

[α] At least 47 additional cases were reported beyond those initiated on treatment in 2024 (and we could not ascertain where they belonged)

Figure 7 illustrates TB treatment outcomes among mineworkers receiving TB treatment in 2024. Treatment initiation coverage was high, with 99.0% of diagnosed mineworkers initiated on treatment. Similarly, overall treatment success reached 95.5%, driven primarily by high proportions of mineworkers classified as cured (53.6%) or having completed treatment (41.9%). Poor treatment outcomes, including treatment failure, loss to follow-up, and mortality, remained low during the reporting period (Figure 7).



[α] *At least 47 additional cases were reported beyond those initiated on treatment in 2024 (and we could not ascertain where they belonged)*

Figure 7: Treatment Outcomes among Mineworkers, Minerals Council HIMS, 2024

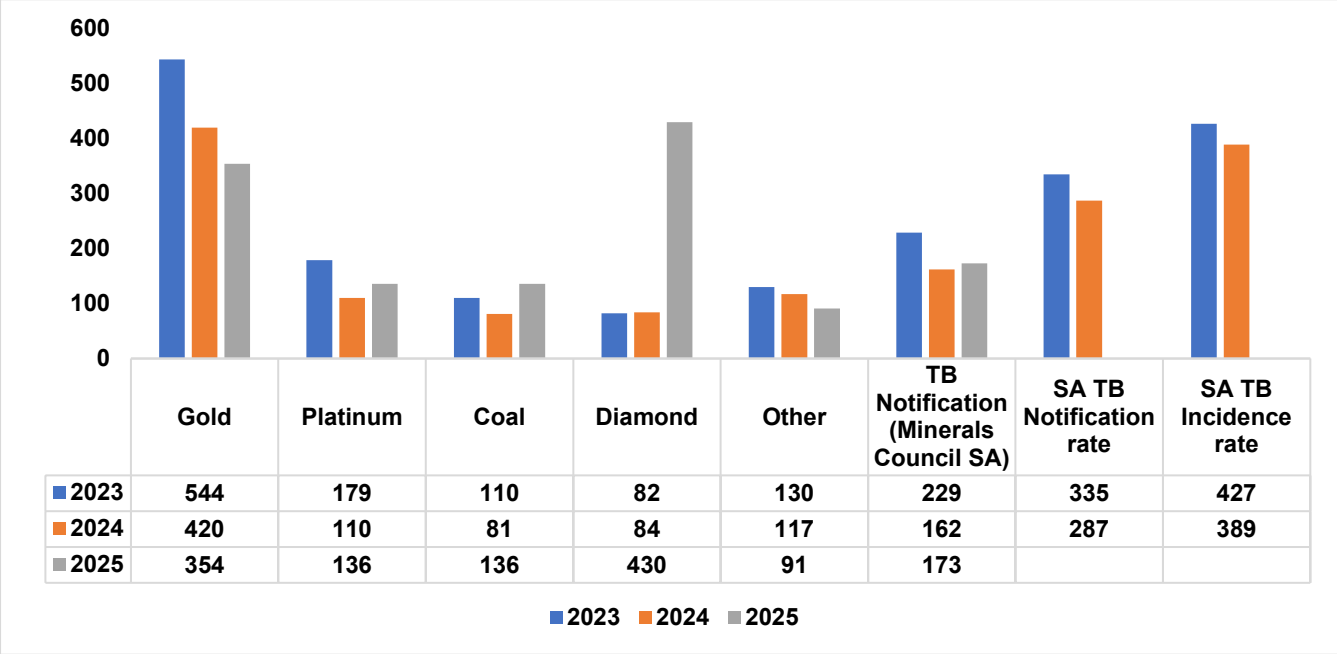
TB Notification Rates by Commodity

As illustrated in Figure 8, Gold and diamond mining reported the highest TB notification rates over the reporting period, although rates declined from 544 per 100 000 in gold mineworkers in 2023 to 354 per 100 000 in 2025. In Diamond mining, a reported outbreak of TB at a particular mine led to an unusual surge in TB cases in 2025. Similarly, TB notification rates in platinum mining declined from 179 per 100 000 mineworkers in 2023 to 136 per 100,000 in 2025. In contrast, TB notification rates within the diamond mining sector increased substantially from 82 per 100 000 mineworkers in 2023 and 84 per 100 000 in 2024 to 430 per 100,000 in 2025. Coal mining also demonstrated an increase in TB notification rates in 2025, while notification rates within the "Other" commodity category declined over the reporting period (Figure 8).

Gold mining reported TB notification rates that exceeded the South African TB notification rate in both 2023 and 2024, although the gap narrowed over time as notification rates declined. In contrast, TB notification rates in platinum, coal, and "Other" mining commodities remained below the South African national notification rate throughout the reporting period.

The overall MCSA TB notification rate declined from 229 per 100 000 mineworkers in 2023 to 162 per 100 000 in 2024, before increasing slightly to 173 per 100 000 in 2025. Despite this

increase, the MCSA TB notification rate remained lower than the reported South African national TB notification and WHO-estimated incidence rates during the reporting period (Figure 8).



	Gold	Platinum	Coal	Diamond	Other	TB Notification (Minerals Council SA)	SA TB Notification rate	SA TB Incidence rate
2023	544	179	110	82	130	229	335	427
2024	420	110	81	84	117	162	287	389
2025	354	136	136	430	91	173		

NB 2025 South African national TB notification rate and incidence rate data were not available at the time of reporting; further, the surge in TB notification for diamond mines was due to a TB outbreak in one mine

Figure 8: Trends in Commodity-Specific TB Notification Rates among Mineworkers, Minerals Council HIMS, 2023-2025

Reporting to DoH and DMPR

Notification of employees diagnosed with TB to the DoH remained consistently high throughout the reporting period, ranging from 87.5% to 91.8%. In 2025, 637 (87.5%) mineworkers diagnosed with TB were notified to the DoH, representing a decline from 91.8% in 2024 (Table 5).

Similarly, notification of mineworkers diagnosed with TB to the DMPR declined progressively over the reporting period, from 87.7% in 2022 to 80.8% in 2025. In 2025, 588 mineworkers diagnosed with TB were notified to the DMPR compared with 849 in 2022 (Table 5).

Table 5: TB case notification to DoH and DMPR, Minerals Council HIMS, 2022-2025

TB notification	2022 N= 968		2023 N= 961		2024 N= 683		2025 N= 728	
	n	%	n	%	n	%	n	%
Employee notified to the DoH	886	91.5	871	90.6	627	91.8	637	87.5
Employee notified to the DMPR	849	87.7	830	86.4	578	84.6	588	80.8

HIV and TB Co-infection

As illustrated in Figure 9, a total of 569 mineworkers were reported as co-infected with TB and HIV, of whom 557 (97.9%) were receiving ART, representing near-universal ART coverage among co-infected mineworkers.

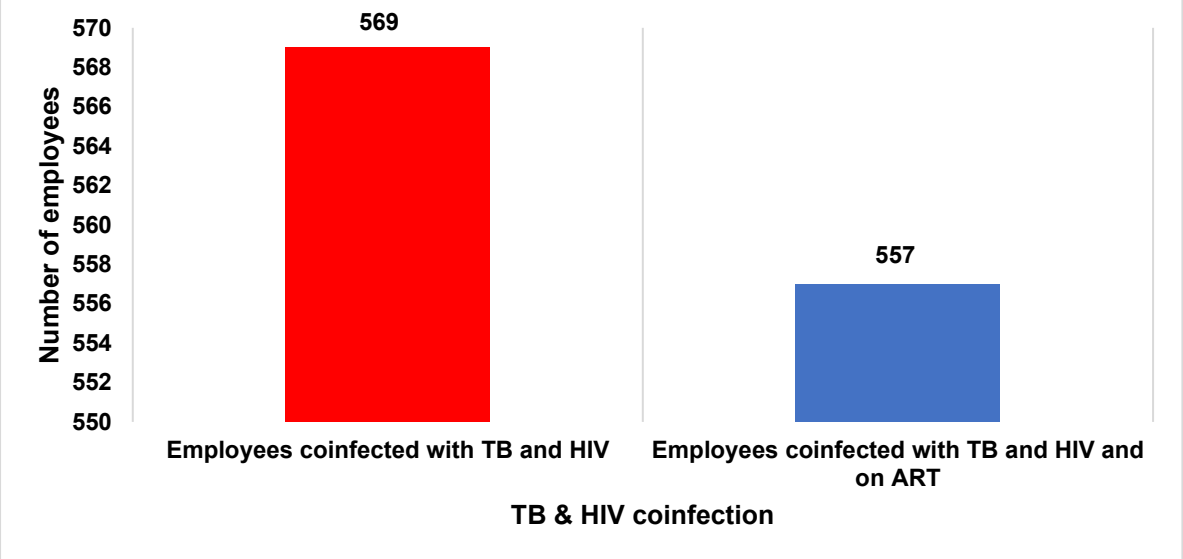


Figure 9: TB and HIV Coinfection and ART Coverage among Mineworkers, Minerals Council HIMS, 2025

4.5. Non-Communicable diseases

Over the period 2022 to 2025, the proportion of mineworkers screened for hypertension increased from 82.5% in 2022 to a peak of 90.7% in 2023, before declining slightly to 88.8%

in 2024 and 88.1% in 2025 (Table 6). Similarly, diabetes screening coverage increased from 78.0% in 2022 to 89.8% in 2023, declined to 84.0% in 2024, and increased again to 89.7% in 2025.

Obesity screening, introduced after 2022, demonstrated consistently high coverage, increasing from 87.3% in 2023 to 88.8% in 2025. Cholesterol screening coverage, similarly introduced after 2022, although lower than other metabolic screening indicators during earlier reporting periods, increased substantially from 26.0% in 2024 to 72.5% in 2025 among mineworkers eligible for cholesterol screening (N = 150 449) (Table 6). Cholesterol screening coverage was calculated among mineworkers eligible for screening, i.e. mineworkers with hypertension, diabetes, obesity or HIV, and therefore may not be directly comparable to the denominators used for other NCD screening indicators.

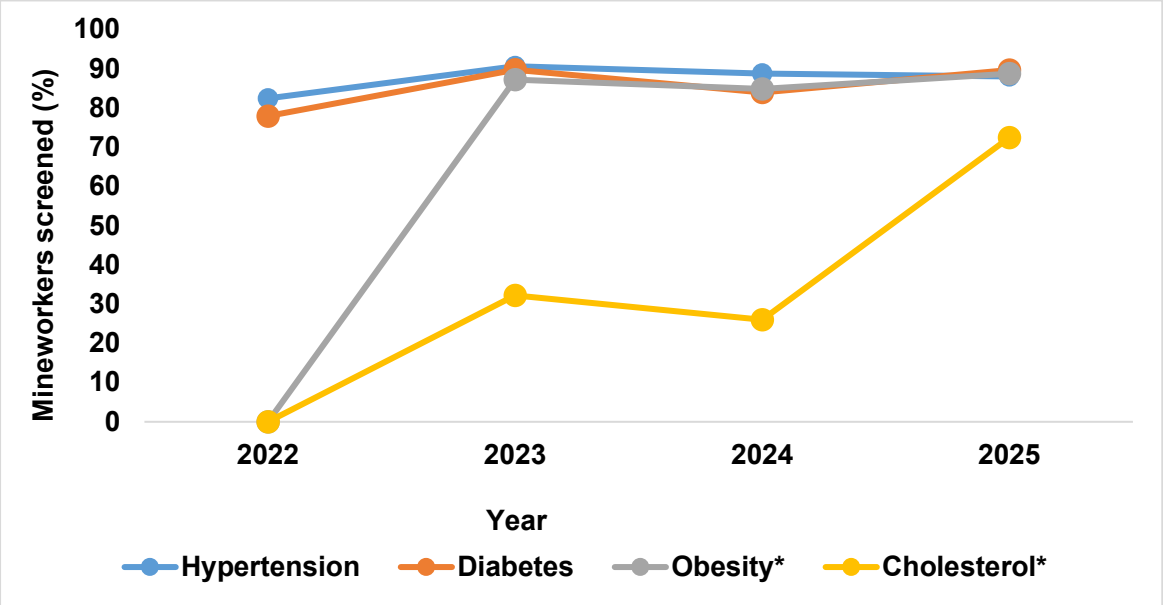
Table 6: Screening coverage for Hypertension, Diabetes, Obesity and Cholesterol among mineworkers, Minerals Council HIMS, 2022-2025

Activity	**MHSC 2024 Milestones**	**MHP 2030 Target**	**2022 N = 426 536**	**2023 N = 447 079**	**2024 N = 453 040**	**2025 N = 422 009**
Non-Communicable Diseases	100% of mineworkers screened for HPT	100% of mineworkers screened for HPT	351 810 (82.5)	405 576 (90.7)	402 517 (88.8)	371 613 (88.1)
	100% of mineworkers screened for DBT	100% of mineworkers screened for DBT	332 828 (78.0)	401 422 (89.8)	380 537 (84.0)	378 558 (89.7)
	100% of mineworkers screened for Obesity	100% of mineworkers screened for Obesity	0[α]	390 165 (87.3)	384 763 (84.9)	374 770 (88.8)

	100% of mineworkers screened for Cholesterol ᵞ **(N = 150 449)**	100% of mineworkers screened for Cholesterol ᵞ **(N = 150 449)**	0[α]	143 904 (32.2)	117 566 (26.0)	109 141 (72.5)

[β] Obesity and cholesterol screening indicators were introduced after 2022; ᵞ Cholesterol screening coverage was calculated using the number of mineworkers eligible for cholesterol screening as the denominator

As illustrated in Figure 10, Hypertension screening increased substantially between 2022 and 2023 and remained relatively stable thereafter, declining slightly to 88.1% in 2025. Similarly, diabetes screening coverage increased from 78.0% in 2022 to 89.8% in 2023, declined in 2024, and increased again to 89.7% in 2025. Obesity screening coverage remained consistently high following its introduction, along with Cholesterol screening in 2023, increasing from 87.3% in 2023 to 88.8% in 2025. Cholesterol screening coverage demonstrated the greatest relative improvement, increasing markedly from 26.0% in 2024 to 72.5% in 2025 among mineworkers eligible for cholesterol screening (Figure 10).



[β] Obesity and cholesterol screening indicators were introduced after 2022

Figure 10: Trends in Hypertension, Diabetes, Obesity and Cholesterol Screening Coverage among mineworkers, Minerals Council HIMS, 2022-2025

4.6. Mental Health

Mental health screening coverage increased from 63.4% in 2024 to 78.1% in 2025. Among those screened, the proportion identified with mental health challenges decreased slightly

from 8.0% to 7.6% over the reporting period. Linkage to mental health care improved from 76.0% in 2024 to 80.7% in 2025 (Table 7, Figure 11).

Table 7: Mental Health Programme indicators among mineworkers, Minerals Council HIMS, 2024-2025

MHSC 2024 Milestones	MHP 2030 Target	2024 N= 430 862		2025 N= 425 960	
		n	%	n	%
95% of Mineworkers screened for Mental Health challenges	100% of Mineworkers screened for Mental Health challenges	273 259	63.4	332 605	78.1
Identified with Mental Health challenges	Identified with Mental Health challenges	22 001	8.0	25 366	7.6
100% Linked to Mental Health Care	100% Linked to Mental Health Care	16 728	76.0	20 470	80.7

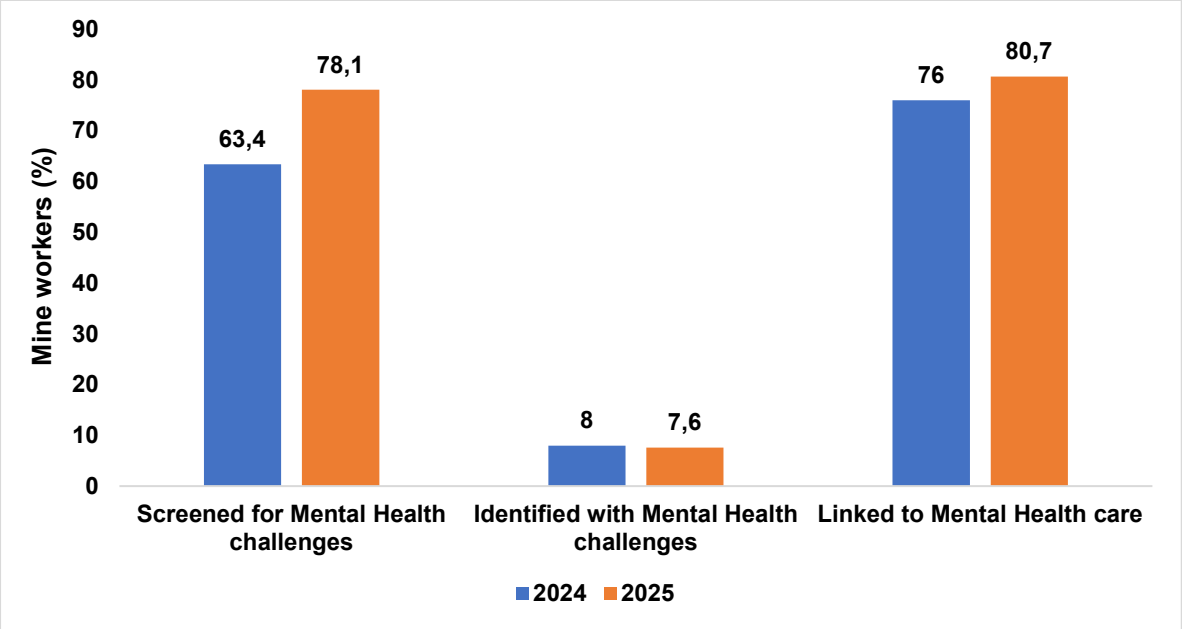


Figure 11: Mental Health Programme indicators among mineworkers, Minerals Council HIMS, 2024-2025

4.7. Occupational Medicine

Occupational Medicine screening performance

From 2022 to 2025, no new cases of coal workers' pneumoconiosis were reported among novice workers, maintaining a consistent 0.0% rate throughout the reporting period (Table 8). Similarly, no new cases of silicosis among novice workers were reported in 2022, 2024, and 2025, while two cases were identified in 2023 (Table 8).

Table 8: Occupational lung disease screening performance among novice mineworkers, Minerals Council HIMS, 2022-2025

MHSC 2024 Milestones	MHP 2030 Target	2022 N = 426 536	2023 N = 447 079	2024 N = 453 040	2025 N = 422 009
0 Number of cases of silicosis among novice workers	0 Number of cases of silicosis among novice workers	0 (0.0)	2 (0.0)	0 (0.0)	0 (0.0)
0 Number of cases of coal workers' pneumoconiosis among novice workers	0 Number of cases of coal workers' pneumoconiosis among novice workers	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Trends in Silicosis and Coal Workers' Pneumoconiosis

The number of new silicosis cases diagnosed fluctuated over the reporting period, increasing from 154 cases in 2021 to 171 in 2022, before declining to 115 in 2024 and increasing again to 134 in 2025 (Table 9). Diagnosed cases of coal workers' pneumoconiosis demonstrated a gradual upward trend over time, increasing from 1 case in 2021 to 13 cases in 2025 (Table 9).

Table 9: Trends in Silicosis and Coal workers' pneumoconiosis cases among mineworkers, Minerals Council HIMS, 2021-2025

Indicator	2021 N= 394 196	2022 N= 426 536	2023 N= 447 079	2024 N= 453 040	2025 N= 422 009

New silicosis cases diagnosed	154	171	168	115	134
New Coal Worker's Pneumoconiosis diagnosed	1	5	6	7	13

5. Discussion

Conformance

The increase observed in the number of companies registered on the Minerals Council HIMS indicates improved conformance with MHP reporting requirements over time, reflecting strengthened alignment with regulatory frameworks such as the MHSA. [42] This enhanced participation supports more robust occupational health surveillance and evidence-based decision-making.

Similarly, the steady increase in the number of mineworkers represented over the reporting period suggests improving programme coverage, workforce representation, and reporting completeness within the MHP. The continued increase observed in 2025, representing the highest workforce coverage reported during the reporting period, further reflects strengthened participation and reporting within the Minerals Council HIMS, and may be reflective of operational changes within participating companies or an enhancement in reporting coverage. Considering the significance of the mining sector in national employment,[12], comprehensive health data remains essential for targeted interventions.

Further evidence of improved conformance is reflected in the steady increase in the proportion of MHP reports submitted, which reached 97.6% in 2025. The substantial decline in unaccounted for reports in 2025 represents a significant improvement in data completeness and accountability, strengthening the reliability of programme monitoring. However, the persistence of pending reports indicates ongoing challenges, potentially related to variability in data management capacity and operational constraints, as described in similar occupational health settings. [14,15]

Performance of screening programmes

Variable performance is illustrated across HCT and TB screening indicators, reflecting both progress and persistent gaps in service delivery. Although fluctuations in HCT coverage were observed during the reporting period, coverage improved substantially in 2025, approaching the MHSC milestone and MHP target for annual HCT coverage among mineworkers. This suggests continued commitment to delivering HIV prevention and awareness services within the SAMI, despite fluctuations in overall programme coverage. HIV counselling remains a critical entry point for HIV testing, prevention, and linkage to care, and is central to achieving national and global HIV targets. [17,43]

HIV testing coverage improved over time, indicating sustained uptake of testing services despite fluctuations in counselling coverage. The relatively low HIV positivity rate observed in 2025 may reflect ongoing progress in HIV prevention and epidemic control efforts within the

mining population, consistent with national trends. [17] However, this should be interpreted cautiously, as changes in testing coverage and patterns may influence positivity rates.

ART initiation among newly diagnosed mineworkers increased in 2025, suggesting improved linkage to treatment services. This aligns with global recommendations emphasising early initiation of ART to improve health outcomes and reduce transmission. [17,43] However, the gap between HIV diagnosis and treatment initiation indicates that further strengthening of linkage-to-care pathways remains necessary within the programme.[52]

TB screening coverage remained relatively high throughout the reporting period, with improvement observed in 2025 following the decline recorded in 2024, despite not having attained the programme target of universal annual screening. Considering the increased risk of TB among mining populations due to occupational silica exposure and the concomitant high prevalence of HIV,[19,20], maintaining high screening coverage is essential for early case detection and prevention of transmission.[38] Although the reported TB notification rate increased slightly in 2025, to 173 per 100 000, the rate remained substantially lower than that observed in 2023 and below the reported South African national TB notification rate, and substantially lower than WHO-estimated national TB incidence rates,[53], suggesting continued progress in TB prevention and control efforts within the SAMI. [18,38]

HIV programme

The findings reveal heterogeneous performance across HIV programme indicators, with improvements observed in HIV testing uptake, ART initiation and IPT coverage, alongside challenges related to counselling coverage and viral suppression. Although overall HCT coverage improved substantially in 2025, HIV counselling coverage declined compared with previous reporting periods, suggesting potential gaps in the delivery of comprehensive HIV prevention and counselling services within the SAMI. This is particularly significant, as counselling remains a critical entry point for HIV testing and linkage to care, and is central to achieving global HIV targets. [17,43]

HIV testing coverage showed a modest increase over the reporting period, suggesting sustained uptake of testing services despite the decline in counselling. The marked reduction in HIV positivity rates over the reporting period may reflect progress in prevention efforts and broader epidemic control, consistent with national and global trends in the management of HIV.[17] However, this should be interpreted with caution, as changes in testing patterns and coverage may also influence observed positivity rates. [54]

ART initiation among those newly diagnosed with HIV improved substantially in 2025, indicating strengthened linkage to treatment services and progress towards improving continuity of care in the MHP. This aligns with global recommendations emphasising rapid initiation of ART to improve individual health outcomes and reduce onward transmission. [17,43] The relatively stable number of mineworkers living with HIV and receiving ART further suggests sustained programme reach and ongoing access to treatment services.

However, the decline in viral suppression among those on ART is concerning, as it may indicate challenges related to treatment adherence, retention in care, or service quality. [55] Achieving and maintaining viral suppression is a key component of the UNAIDS 95-95-95 targets, which aim for 95% of people living with HIV to know their status, 95% of those diagnosed to be on treatment, and 95% of those on treatment to achieve viral suppression. [17] These targets are central to the Global AIDS Strategy and are critical for both individual health outcomes and population-level epidemic control.

Furthermore, the substantial increase in the proportion of HIV-positive mineworkers receiving IPT in 2025 represents an important strengthening of TB preventive services within the HIV care programme. This is particularly important in the mining sector, where the dual burden of HIV and TB continues to pose a significant public health challenge. [19,20] Strengthening integrated HIV and TB services remains critical to reducing morbidity and mortality in this particularly high-risk population. [19]

TB programme

Strong performance is noted across several TB programme indicators. However, gaps along the TB care cascade indicate ongoing opportunities to strengthen programme implementation and continuity of care. TB screening coverage remained relatively high throughout the reporting period, with 88.4% of mineworkers screened in 2025, reflecting a partial recovery following the decline observed in 2024. This trend, as illustrated in Figure 6, suggests improving programme performance following earlier fluctuations that may have been influenced by operational or workforce-related factors.[15] Sustained high screening coverage is critical in the mining sector, where the risk of TB is elevated due to occupational exposures such as silica dust and the concomitant high burden of HIV. [19,20]

Among mineworkers screened for TB, the proportion subjected to further TB investigations declined from 98.2% in 2023 to 79.3% in 2025, indicating attrition within the diagnostic cascade, despite continued high screening coverage, continuing a declining trend noted in previous years. Although 14 448 mineworkers underwent further TB investigations in 2025, the declining proportion investigated following screening represents a potential missed opportunity for early diagnosis and interruption of transmission, both of which are central to

the WHO's End TB Strategy. [38] Strengthening the linkage between screening and diagnostic services is, therefore, essential to improve case detection and overall programme effectiveness. [56]

Treatment initiation among mineworkers diagnosed with TB remained consistently high throughout the reporting period, with 95.3% of mineworkers diagnosed initiated on treatment in 2025. This suggests effective linkage to care services within the MHP, aligning with global recommendations for prompt initiation of TB treatment to reduce morbidity and transmission. [38]

TB Treatment Outcomes

The TB treatment outcomes observed among mineworkers indicate strong programme performance across the treatment cascade. Treatment initiation among mineworkers diagnosed with TB was near universal, while the treatment success rate substantially exceeded the South African national treatment success rate reported for 2023.[18,53] High proportions of mineworkers classified as cured or having completed treatment suggest effective continuity of care, treatment adherence support, and programme follow-up within the MHP.

Poor treatment outcomes, including treatment failure, loss to follow-up, and mortality, remained relatively low during the reporting period. These findings are particularly important within mining populations, where the intersecting burden of TB, HIV, occupational silica exposure, and migratory labour systems may negatively affect treatment continuity and outcomes.[19,20] The findings, therefore, suggest effective integration of TB screening, treatment initiation, follow-up, and occupational health services within the MHP, aligning with the objectives of the WHO End TB Strategy and the NSP for HIV, TB and STIs aimed at improving treatment outcomes and reducing TB-related morbidity and mortality.[38,43]

TB notification rates demonstrated important variability across commodity sectors. Gold mining consistently recorded the highest notification rates over the reporting period, although rates declined steadily from 544 per 100 000 in 2023 to 354 per 100 000 in 2025. Platinum and "other" commodity sectors similarly demonstrated overall declines. In contrast, coal mining demonstrated an increase in notification rates in 2025 following earlier declines. The diamond sector, similarly, showed a marked increase in 2025, which may be partially attributable to intensified TB screening activities implemented at one participating company following a reported TB outbreak. Expanded workforce screening likely resulted in improved case detection and increased reporting of TB cases during the reporting period. Overall, these differences likely reflect variability in occupational exposures, workforce dynamics, mining practices, and underlying risk profiles across commodity sectors.[57]

Notably, TB notification rates in several commodity sectors remained comparable to or above the South African national TB notification rate of 287 per 100 000,[53], during portions of the reporting period, reinforcing the continued disproportionate burden of TB within certain mining populations. However, the declining trends observed in several sectors, particularly gold mining, may reflect the positive impact of strengthened occupational health interventions, enhanced screening programmes, and integrated HIV/TB services implemented through initiatives such as the MHP.[22,24]

Notification to DoH and DMPR

Notification of TB cases to the DoH and DMPR remained relatively high throughout the reporting period; however, declines in notification proportions were observed in 2025, particularly for DMPR notification. The lower proportion of cases notified to the DMPR compared with the DoH may reflect differences in reporting pathways, administrative processes, or reporting compliance requirements. Accurate and complete notification remains essential for effective national TB surveillance, programme monitoring, and occupational health governance within high-burden settings such as SA.[18] Thus, ongoing strengthening of reporting systems and data management processes remains important in the support of both industry and national TB control efforts.

TB and HIV co-infection

The results indicate a high level of ART coverage among mineworkers co-infected with TB and HIV, with the majority of affected mineworkers receiving treatment. This is a positive programme outcome, as prompt initiation of ART in individuals with TB/HIV coinfection is critical for reducing morbidity and mortality and is strongly recommended in global HIV and TB management guidelines. [17,38]

High ART coverage among co-infected mineworkers suggests effective integration of HIV and TB services within the MHP, which is essential in the mining sector, where, as discussed earlier, the intersecting burden of these conditions remains a significant public health concern. [19,20] Integrated service delivery has been shown to improve patient outcomes by facilitating timely diagnosis, treatment initiation, and continuity of care. [55,56]

However, the difference between the number of co-infected individuals and those receiving ART indicates that not all affected mineworkers were initiated on treatment. While the difference was limited, it indicates an opportunity to further strengthen linkage to care and ensure that all eligible mineworkers receive timely ART, aligned with global targets for universal treatment coverage. [17,38,55]

NCDs

The findings demonstrate consistently high coverage of hypertension and diabetes screening among mineworkers, reflecting progress in the integration of NCD services within the MHP and alignment with national priorities aimed at strengthening the prevention and early detection of NCDs.[44] Screening coverage for both hypertension and diabetes approached 90% across much of the reporting period, indicating sustained implementation of workplace-based screening programmes within the SAMI, which constitutes a particularly important population, where occupational exposures, physically demanding work, and behavioural risk factors may contribute to an elevated burden of NCDs.[26,27]

Although slight declines in hypertension and diabetes screening coverage were observed following the peak recorded in 2023, coverage remained relatively high throughout the reporting period, suggesting sustained integration of NCD screening within workplace health programmes. As illustrated in Table 6, screening coverage for obesity and cholesterol improved substantially in 2025, following their introduction into the MHP after 2022 as part of broader efforts to strengthen metabolic risk factor surveillance within the SAMI.[35]

Obesity screening coverage reached 88.8% in 2025, reflecting sustained integration of obesity screening into routine workplace health services. Cholesterol screening coverage also increased markedly to 72.5% in 2025 among mineworkers considered to be at high risk for cholesterol abnormalities and eligible for screening. Although coverage remained below programme targets, the findings suggest strengthened implementation of broader metabolic risk factor screening and cardiovascular risk assessment within participating companies. Obesity and dyslipidaemia remain important modifiable risk factors for cardiovascular disease, diabetes, and other chronic conditions.[25,26] Ongoing strengthening of integrated cardiovascular risk assessment, prevention, and follow-up services within the MHP therefore remains important, with effective NCD management extending beyond screening and treatment initiation and requiring sustained disease control through ongoing follow-up, adherence support, lifestyle modification, and continuity of care.[27]

Mental Health

Progress in the integration of mental health services within the MHP is evident, with notable improvements observed in both screening coverage and linkage to care between 2024 and 2025. Mental health screening coverage increased substantially from 63.4% to 78.1%, illustrating growing recognition of mental health as an important component of occupational health and wellness within the SAMI, and aligning with recent industry and policy developments, including the DMPR guidance framework promoting the integration of mental health screening and referral systems into mineworker health programmes.[35]

The increasing integration of mental health services is particularly important given the demanding and hazardous nature of mining work. Mineworkers are frequently exposed to psychosocial stressors, including hazardous working conditions, long working hours, job insecurity, social isolation associated with migratory labour systems, and separation from family support structures,[28], factors which contribute to an increased risk of stress, anxiety, depression, substance use disorders, and other mental health challenges among mining populations.[28,35] The expansion of mental health screening and referral services within the mining sector therefore represents an important step towards more comprehensive and holistic approaches to worker health and well-being.

Despite improvements in screening coverage, the proportion of mineworkers identified with mental health challenges remained relatively stable, declining only slightly from 8.0% in 2024 to 7.6% in 2025, reflecting consistent underlying mental health needs within the workforce rather than a true reduction in the burden of mental health challenges. Thus, early identification of mental health challenges is critical, not only for improving individual well-being but also for supporting workplace safety, productivity, and overall organisational performance.[28,58]

Linkage to mental health care improved from 76.0% in 2024 to 80.7% in 2025, indicating strengthening referral pathways and access to care for affected mineworkers. This is a significant finding, as the effective management of mental health conditions requires not only screening but also requires timely access to appropriate support and treatment services.[35] However, despite these improvements, both screening coverage and linkage to care remained below the MHSC and MHP targets, indicating ongoing opportunities to strengthen implementation and expand access to mental health services across the sector.

However, the inclusion of mental health indicators within the MHP reflects a shift towards more comprehensive and integrated approaches to mineworker health and wellness, and addressing mental health alongside CDs, NCDs, and other occupational diseases is crucial to promoting holistic worker health and achieving the objectives of safe, healthy, and productive workplaces as envisioned within the ILO's Decent Work Agenda. [40]

Occupational Medicine

The results demonstrate heterogeneous progress towards industry occupational health milestones, with evidence of progress observed in the prevention of occupational lung

diseases among novice workers, alongside persistent challenges related to occupational noise exposure. While important progress has been made in occupational disease prevention and surveillance within the SAMI through initiatives such as the MHP,[22,33,34], continued strengthening of exposure control measures remains necessary.

The results demonstrate continued progress towards industry occupational health milestones related to preventing occupational lung diseases among novice workers. No new cases of coal workers' pneumoconiosis were reported among novice workers throughout the reporting period, while no cases of silicosis among novice workers were identified in 2022, 2024, and 2025, with only two cases reported in 2023. These findings suggest sustained progress towards achieving the MHP target of eliminating new cases of occupational lung disease among previously unexposed workers.[23,51] The consistently low incidence among novice workers likely reflects ongoing improvements in occupational hygiene controls, dust exposure monitoring, surveillance systems, and preventive interventions implemented across the mining sector through initiatives such as the MHP.[22,23,34]

Despite positive findings among novice workers, new cases of silicosis and coal workers' pneumoconiosis continued to occur within the broader mining workforce. Silicosis cases fluctuated during the reporting period, declining between 2022 and 2024 before increasing again in 2025. Similarly, coal workers' pneumoconiosis demonstrated a gradual upward trend over time. These findings reflect the cumulative and chronic nature of occupational dust exposure, where disease may develop many years following initial exposure.[19,30] Persistent disease occurrence, therefore, indicates the need for continued strengthening of dust control measures, environmental monitoring, occupational hygiene practices, and long-term medical surveillance programmes within the mining sector.

6. Conclusion

The findings of this report demonstrate continued progress in strengthening occupational health programmes within the SAMI through the MHP. The high coverage of TB, HIV, and non-communicable disease screening, improved linkage to treatment and care in several programme areas, expansion of mental health integration, and encouraging progress towards occupational health milestones are reflective of sustained industry commitment to improving mineworker health and well-being.

Strong performance was particularly observed across several TB programme indicators, including high treatment initiation and treatment success rates, lower TB notification rates relative to national notification rates, and strengthened integration of HIV and TB services. Similarly, improvements in obesity, cholesterol, and mental health screening coverage suggest ongoing expansion of integrated worker wellness programmes within the SAMI. Ongoing efforts towards the elimination of occupational lung diseases among novice workers further reflects strengthened occupational health and prevention initiatives.

Despite these gains, important gaps remain across several programme areas, including ART initiation, viral suppression, universal NCD screening coverage, and mental health coverage. Ongoing strengthening of integrated prevention, screening, treatment, surveillance, reporting systems, and continuity of care, therefore, remains essential to achieving national, industry, and global health targets.

The MHP continues to provide an important platform for coordinated occupational health action within the SAMI and remains central to advancing safer, healthier, and more productive working environments within the mining sector. The sustained progress demonstrated across multiple programme areas highlights the value of continued collaboration between mining companies, organised labour, government departments, and other relevant stakeholders in strengthening worker health and wellness.

The findings of this report reflect the growing maturity and impact of the MHP as an integrated industry-wide health initiative. Through ongoing commitment to prevention, surveillance, early diagnosis, treatment, and continuity of care, the programme continues to contribute meaningfully towards improved health outcomes, strengthened occupational health systems, and the broader goals of decent work and sustainable development within the South African mining sector.

7. Limitations

This report is based on routinely collected programme data from the Minerals Council HIMS, which is subject to several limitations:

- Variability in data completeness and reporting across participating mining companies may have influenced the accuracy and representativeness of the findings.
- Differences in reporting practices may have affected the consistency and comparability of certain indicators over time.
- Revisions to selected programme indicators and reporting frameworks over time, including the introduction of new indicators and revised occupational health reporting categories, may have influenced comparability across reporting periods for certain indicators.
- The use of aggregated company-level data restricted the ability to conduct more detailed analyses, including disaggregation by age, sex, occupation, or geographic location, limiting the capacity to identify population-specific trends, and high-risk subgroups within the mining workforce.
- TB rates presented in this report reflect programme notification rates derived from routinely reported cases within participating companies and should not be interpreted as WHO-estimated TB incidence rates, which are derived using modelling approaches that account for under-diagnosis and underreporting.
- As a cross-sectional analysis of routinely collected data, the findings are descriptive and do not allow for causal inference. Observed trends should, therefore, be interpreted within the broader context of programme implementation, workforce dynamics, and external health system factors.

8. Recommendations

Strengthening the performance of the MHP requires targeted interventions across key programme areas. HIV services should prioritise the restoration and consistency of counselling coverage, particularly considering its critical role in facilitating testing and linkage to care. Efforts to improve ART initiation should be sustained, alongside enhanced strategies to support treatment adherence and retention in care in order to improve viral suppression outcomes.

Strengthening linkages between TB screening and diagnostic services is imperative to reduce attrition along the care cascade and improve case detection; sustaining high screening coverage, alongside enhanced completeness and timeliness of case notification, remains critical for effective TB control.

Strengthening data quality is essential for MHP performance. Improved data validation processes, standardised reporting practices, and sustained capacity building in data management and reporting are required to improve the reliability and applicability of HIMS data for programme monitoring and to support evidence-based decision-making.

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