



EMPLOYEE AND COMMUNITY HEALTH

Occupational disease prevention and management is the primary focus of the company's health-related activities. We work to continually improve prevention efforts and to reduce occupational exposures to hazards.

IN FOCUS

18% improvement in Occupational Tuberculosis in South Africa Region

This represents a 70% decline over the past decade



KEY FEATURES

Our goal is to create workplaces free of occupational illness. Despite significant achievements over the past decade, achieving our goal remains challenging. The company faces the ongoing risk of occupational illness, with the need to continually improve prevention efforts and further reduce occupational exposures to hazards which may cause disease.

At an operational level the severity of occupational health risks varies from site to site. The fundamental drivers of risk are the nature of mining undertaken, and the size and complexity of the operations. For example, deep-level, labour-intensive mining of an ore body with high silica content, confers a greater occupational health risk than open cast mechanised mining. The key considerations include the nature of the specific hazard, the number of potential exposures and the extent of exposure over time. Beyond occupational health risks, many of our operations are in regions with a high burden of disease and face the frequent

threat of epidemics. Where this is associated with weak public sector healthcare infrastructure, we require capability to support broad employee health needs and there are increased expectations for the company to contribute to health improvements within the broader community.

Notwithstanding the diversity of health risk profiles across our operations, the company approach, which has evolved over the past decade, focuses on three strategic themes:

- optimising internal medical systems and processes to achieve stable and consistent performance levels;
- integrating medical and non-medical systems and activities to enhance our overall health impact; and
- sustainability-based initiatives to create mutual value.

During the year, continued and improved use of the [Group Health Risk Framework](#) developed in 2015 has assisted giving effect to the company health strategy in a way that is globally consistent, yet locally relevant.

“Our approach to health is dynamic, and evolves over time to remain relevant.”





EMPLOYEE AND COMMUNITY HEALTH (CONTINUED)

OUR ACTIONS IN 2016

Our actions in 2016 are framed by the health risks facing the company as outlined in our Group Health Risk Framework. Our overall health risk profile is illustrated in the diagram which reflects post-control residual risk.

Risk		Non-occupational disease		Occupational disease					Occupational health systems	Social and communicable health impacts
Country	Health policy and regulation	Communicable	Non-communicable	Ergonomics	Biological	Chemical	Physical	Psychological		
South Africa	●	●	●	●	●	●	●	●	●	●
Ghana	●	●	●	●	●	●	●	●	●	●
Tanzania	●	●	●	●	●	●	●	●	●	●
Guinea	●	●	●	●	●	●	●	●	●	●
Mali	●	●	●	●	●	●	●	●	●	●
Brazil	●	●	●	●	●	●	●	●	●	●
Argentina	●	●	●	●	●	●	●	●	●	●
Colombia	●	●	●	●	●	●	●	●	●	●
Australia	●	●	●	●	●	●	●	●	●	●
Exploration	●	●	●	●	●	●	●	●	●	●

Manage routinely
 Manage actively
 Manage proactively



EMPLOYEE AND COMMUNITY HEALTH (CONTINUED)

HEALTH POLICY AND REGULATIONS

Across all regions and countries where we operate, health policy and regulations tend to evolve gradually by virtue of their complexity. In this context, the company approach is twofold. In the first instance, as policy and regulatory changes emerge, we seek to influence their development for fairness and mutual benefit through relevant industry organisations. For established policy and regulatory frameworks, we adapt and strengthen our internal operating processes to meet any new requirements.

In seeking to address an inequitable healthcare landscape in South Africa, efforts to overhaul the national health system began in 2011 through the release of a Green Paper on National Health Insurance. After little subsequent progress, early 2015 saw the release of a White Paper which sought to make the proposed policy concepts more tangible, although the specific models to be implemented remain vague and poorly defined. In the absence of such clarity, it is not possible to quantify any potential impacts on the company. Such policy will however affect company funding mechanisms for employee healthcare benefits, as well as the company operating model for healthcare delivery in South Africa. While policy and concept development – which is inclusive of healthcare funding and provision services – remains at a very early stage, the company has played a lead role in developing a coherent private sector approach through Business Unity South Africa (BUSA).

The approach is premised on seeking an equitable and sustainable healthcare solution in the national interest and for all South Africans.

Various amendments to legislation providing for compensation for occupational health have occurred in many countries in which we operate. The changes have largely not been material, and the company maintains its ability to respond adequately to such ongoing changes. In South Africa, work is ongoing to integrate several existing compensation schemes for work-related injury or illness. The company is actively engaged through the Chamber of Mines in designing the future legislative framework, and while the process is particularly slow, there is an optimistic target to publish proposals during 2017.

In June 2012, the International Agency for Research on Cancer reclassified diesel exhaust emissions as carcinogenic to humans. The key implication of this was the recognition of diesel particulate matter (DPM) as an occupational hazard. While policy development has subsequently begun, its pace is varied across jurisdictions within which AngloGold Ashanti operates. Apart from Australia, no countries where we operate have established Occupational Exposure Limits (OELs) for diesel particulates. The company has worked actively with regulators through the Western Australia Chamber of Minerals and Energy in the development of guidelines to prevent exposures.

In South Africa, in anticipation of formal regulations the company participated in the development of an advisory note to the Ministry of Mineral Resources, outlining proposals on OELs, along with a proposed pathway for the industry to achieve compliance. Little progress has been evident, but the company has continued to implement controls to prevent exposure to DPM.

OCCUPATIONAL DISEASES

In terms of healthcare risk, occupational disease prevention and management is the primary focus of company health-related activities. This is due to the potential for hazardous exposures and health consequences that arise in the course of doing work.

Based on operational risk assessments, all operations have identified site-specific hazards and have implemented appropriate exposure monitoring and risk-based medical surveillance programmes. From a group perspective, the most significant occupational hazards are silica dust exposure and noise. Silica dust exposure with the potential development of silicosis is primarily a risk at the deep-level, hard-rock mining operations in South Africa due to the rock silica content and the labour-intensive mining methods. The risk is significantly less at our other underground operations in Continental Africa, Brazil and Australia. Noise exposure remains a risk across all operations.

Over the past decade, silica dust management programmes in South Africa have demonstrated

success in maintaining exposures below the Occupational Exposure Limit (OEL) of 0.1mg/m³. In 2014, the Mine Health and Safety Council set aspirational milestones to limit exposures further, through a collaborative approach between Government, mining companies and organised labour. While this does not change the regulated OEL, the industry has committed to 95% of all individual exposure measurements for respirable





OCCUPATIONAL LUNG DISEASE (OLD) WORKING GROUP

The Occupational Lung Disease (OLD) working group, comprising African Rainbow Minerals, Anglo American SA, AngloGold Ashanti, Gold Fields, Harmony and Sibanye Gold, remains of the view that achieving a comprehensive solution which is both fair to past, present and future employees, and sustainable for the sector, is preferable to protracted litigation. The members of the working group are among respondent companies in a number of lawsuits. These companies do not believe that they are liable in respect of the claims brought, and they are defending these. The working group has held extensive meetings over the last two years with the claimants' lawyers and key stakeholders from Government, labour and industry.

The working group's objective is to develop, in conjunction with key stakeholders, a comprehensive and sustainable solution to the concerns about OLD in the South African gold mining sector. The working group continues to assist the Medical Bureau for Occupational Diseases (MBOD) and Compensation Commissioner for Occupational Diseases (CCOD) (the government entities responsible for the certification and compensation of mineworkers with OLD in terms of the Occupational Diseases in Mines and Works Act (ODMWA)) to determine the financial viability of the ODMWA Fund, address the significant backlog of past claims and improve the ongoing processing and payment claims, tracking and tracing of ex-mineworkers and development of a comprehensive database of current and ex-mineworkers.

During November 2016, the working group was also invited to attend a SADC Ministers of Health meeting in Swaziland and an outreach by the Department of Health and the Swaziland Ex-miners Association to ex-miners with OLD.

silica dust to be below the level of 0.05mg/m³ by 2024. In response to this stretch challenge, during 2016 the South Africa Region began the implementation of real-time silica dust monitoring in potentially high-risk locations. This novel and innovative approach seeks to strengthen the proactive prevention of exposure. Through

real-time dust monitoring, rapid response to dust suppression is possible. Roll out of the technology will continue through 2017 and we are confident that this technology will enable us to reach this milestone. Medical surveillance programmes have continued to be effective for early identification and management of silicosis.

Occupational Tuberculosis continues to be actively managed in South Africa. Risk is driven by a combination of silica dust exposure, silicosis and the HIV/AIDS epidemic. The company's tuberculosis control programme continued successfully through the year, comprising active management of social factors such as accommodation; dust control in the workplace; a strong company HIV/AIDS programme; and early tuberculosis diagnosis with effective disease management. The incidence of Occupational Tuberculosis continues to reduce year-on-year and the company incidence level is now edging toward the national incidence level despite a significantly higher risk profile within the gold mining industry. Over the past decade, the Occupational Tuberculosis incidence has reduced by 70%.

Noise control remains a challenge across all operations. The primary approach by the company is to reduce noise emissions at source through engineering controls, supported by the use of personal protective equipment. In South Africa, the new Mine Health and Safety Council aspirational milestone calls for total operational noise emitted by equipment to not exceed 107dB (A) (A-weighted decibels) by December 2024. The previous milestone was 110 dB (A). In response, the company is playing an active role through the Chamber of Mines' [Buy and Maintain Quiet Committee](#). Ongoing actions to reduce noise levels within mine workings continue at all operations.





EMPLOYEE AND COMMUNITY HEALTH (CONTINUED)

Activities in relation to diesel particulate matter (DPM) have been discussed in the section on Health Policy and Regulations. Furthermore, in developing DPM exposure management plans, operations are focusing on:

- low emission engines;
- low emission fuel;
- adequate ventilation;
- engine maintenance to reduce emissions;
- exhaust filtration systems;
- air conditioned (filtered) operators' cabins;
- operating practices (avoidance of sudden or excessive loads); and
- driver and workforce education.

The various operations are at different levels of maturity in implementing controls.

In developing a consistent approach to critical control management, specifically for silica dust and noise exposure, work began in 2016 on the development of [BowTie analysis](#) for hazardous exposure, with the prioritisation and monitoring of critical controls. This work will be completed in 2017 and the health team will leverage off the critical control monitoring and management system implemented by the safety discipline. The focus is to further strengthen the adequacy and effectiveness of engineering controls, and prevent exposure at source.

NON-OCCUPATIONAL DISEASE

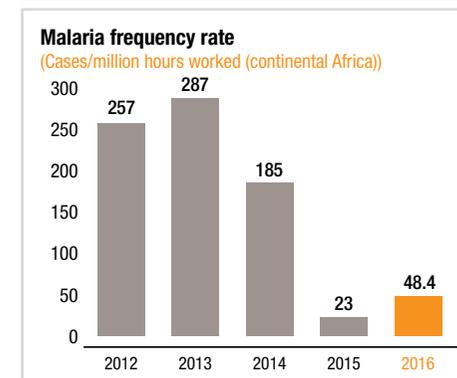
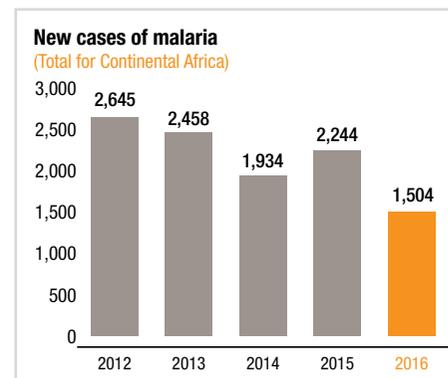
Non-work related diseases cause the greatest burden of ill health and absenteeism across all AngloGold Ashanti operations. These may be communicable or non-communicable.

The most significant communicable disease challenges facing the company are malaria in our East and West Africa operations and HIV/AIDS in South Africa. During the year, the World Health Organisation declared an end to the Ebola epidemic affecting West Africa.

At affected operations, integrated malaria control has been a company focus for over a decade. Effective programmes are in place at all sites. These focus on the entire community adjacent to the mine, and may be in partnership with other providers. Beyond our operational areas, the AngloGold Ashanti led Global Fund Malaria Project continued through the year in Ghana. Due to changes in the Global Fund model, the project was scaled down in 2015 to cover

ten districts. During the year, the programme continued to function effectively. Furthermore, progress was made in establishing partnerships to secure alternative funding, as well as to reduce input costs, particularly the cost of insecticides. HIV/AIDS programmes across our operations in Africa, and particularly in South Africa, have continued to function well. They cover a full suite of activities ranging from awareness creation and disease prevention; testing and early disease identification; to the provision of anti-retroviral treatment and the management of related diseases and opportunistic infections.

Non-communicable diseases, particularly those associated with lifestyle are prevalent across all our operations. This is in line with global trends with increases of obesity and related conditions such as hypertension and diabetes. All operations have active health management programmes which include guidance on prevention, screening and early disease identification, and disease management.





EMPLOYEE AND COMMUNITY HEALTH (CONTINUED)

The company also provides medical insurance cover for all employees.

OPERATIONAL HEALTH SYSTEMS

Operational health systems at a site level are developed on the basis of the size and complexity of the local mining operations, to ensure appropriate capability to manage the health risk faced by the business. Regardless of the size of the health care infrastructure, or whether various service offerings are internally provided or outsourced, all operations are required to meet the following process requirements:

- health hazard and risk identification;
- employee education and training on potential hazardous exposures;
- identification of exposure to hazards in accordance with set limits;

- early disease identification and fitness for work assessment in relation to capacity for specific jobs;
- effective management of injury or illness including rehabilitation;
- ensuring access to the provision of equitable and sustainable healthcare; and
- monitoring and evaluation of health system effectiveness.

During the year all operations provided assurance on the process requirements using the company-developed assurance tool. The tool has been utilised for the past year, and assists the operations in identifying any weaknesses, and driving continuous improvement.

COMMUNITY HEALTH CONTRIBUTIONS

The company approach of working with local communities to improve their health and

well-being to support resilient communities as well as assist with managing public health risks which affect the company continued during the year. The areas of focus included specific responses to public health challenges, especially malaria; supporting health professional capability building; and supporting health infrastructure development. This is consistent with our intent to strengthen public health systems for sustainability.

OUR PERFORMANCE

OCCUPATIONAL DISEASE

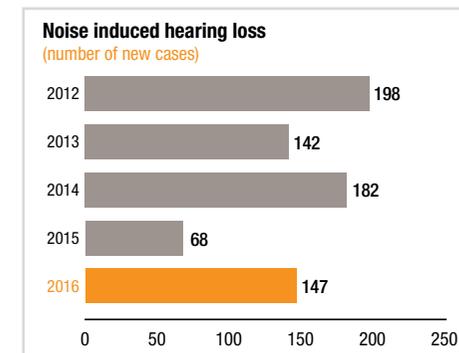
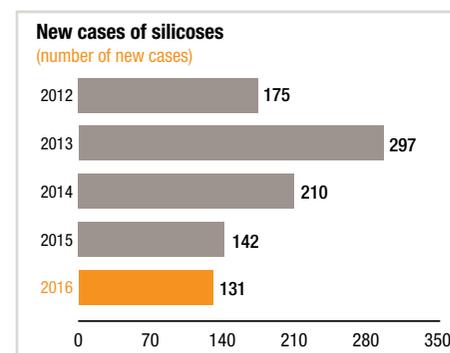
In South Africa, silicosis rates continue to improve. Dust control measures continued to be effective, and our South African operations exceeded the Mine Health and Safety Council milestones for dust control. The number of silicosis cases submitted for

compensation declined and early silicosis cases remain at low levels. Stringent South African mining industry targets for reducing silica dust exposure by 2024 will require modifications to methods for measuring silica dust exposures and further strengthening of workplace controls. Occupational Tuberculosis rates reached a 12-year low. The 2016 incidence rate of 1.02% represents a 72% reduction on the 2004 rate of 3.66%. The downward trend has been consistent over the past decade.

Noise-induced hearing loss rates have unfortunately increased from the previous year. This has been due to improved medical surveillance across the company. As indicated earlier, continued efforts are being placed on reducing noise emitted from equipment through engineering controls.

Process requirements	Maturity
1. Health hazard and risk identification	●
2. Employee education and training on potential hazardous exposures	●
3. Identification of exposure to hazards in accordance with set limits	●
4. Early disease identification and fitness for work assessment in relation to capacity for specific jobs	●
5. Effective management of injury or illness including rehabilitation	●
6. Ensuring access to the provision of equitable and sustainable healthcare	●
7. Monitoring and evaluation of health system effectiveness	●

● Compliant ● Proactive



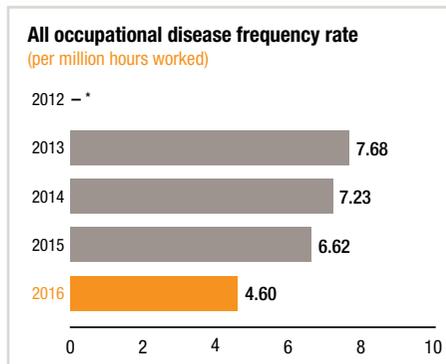


NON-OCCUPATIONAL DISEASE

The burden of chronic disease in the South Africa Region also remains high with approximately 37% of Category 4 to 8 employees receiving treatment for a chronic disease – either communicable (20%) or non-communicable (17%). Communicable diseases include infectious diseases such as HIV and tuberculosis, and non-communicable diseases (NCD's) include hypertension, diabetes, and cholesterol.

Integrated health programmes have improved annual rates for HIV, tuberculosis, hospital admissions, AIDS-defining illnesses, ill-health retirements and deaths in-service – new cases of HIV declined by more than 60% over a period of twelve years.

Much of the success in both tuberculosis and HIV can be attributed to effective screening, diagnosis and treatment programmes, improved dust suppression on the mines, effective housing and accommodation strategies with a drive to private rooms, and a declining dependency on migrant labour. Notwithstanding these relative successes, new cases of HIV highlight the on-going challenge in changing human sexual behaviour in our workforce and in our communities.



* Only reported from 2013

