

## SAFETY AND HEALTH FOCUS



### MESSAGE FROM THE CEO

“We are making steady progress on our journey to improve safety, health and wellbeing in the workplace and to achieving zero harm.”

**Neal Froneman** – Chief Executive Officer

### APPROACH TO SAFETY, HEALTH AND WELLBEING

The safety, health and wellbeing of our employees, the most vital of our stakeholders, is paramount. In addressing these three aspects, our approach is based on Sibanye-Stillwater’s CARES values – commitment, accountability, respect, enabling and safety – and our safety, health and wellbeing tree.

Our approach to safety in particular and the journey to achieve our goal of zero harm is a continuous process. This process involves constantly refreshing, revitalising and renewing safety campaigns and messages. Safety remains one of our top 10 risks and ensuring the safety of employees in the workplace is a moral imperative.



### SAFETY PERFORMANCE 2017

The benefit of the revised safety strategy adopted in the SA region in the latter half of 2016 and rolled out across the operations during 2017, is evident in improvements in all the main safety indicators across the region for the six months ended 31 December 2017. Compared with the same period in 2016, the SA region’s serious injury frequency rate (SIFR) improved by 14% to 3.59 per million hours with the lost-time injury frequency rate (LTIFR) improving by 13% to 5.76 per million hours worked.

The SA region’s gold operations had recorded 85 fatality-free days by year-end, the longest run in our history. Its safety performance compared well with that of peers with similar operations in the sector, as did the SA region’s PGM operations regarding fatalities and serious injuries.



### SA region – safety performance 2017

Company	FIFR	FIFR Ranking	SIFR	SIFR Ranking	LTIFR	LDIFR Ranking
Gold operations	0.09	1	4.11	1	6.32	1
Gold peer 1	0.11	2	5.00	3	10.08	3
Gold peer 2	0.15	3	4.18	2	7.07	2
PGM operations	0.04	1	2.59	1	4.69	2
PGM peer 1	0.10	3	4.86	3	7.37	3
PGM peer 2	0.05	2	3.00	2	4.27	1

Source: Industry Working Group

Despite the improved performance during the year, it is with deep regret that Sibanye-Stillwater reports the death of 11 employees during 2017 (2016: 14), all in the SA region – nine employees at the gold operations and two at the PGM operations (2016: 12 and two, respectively).

### In memoriam – 2017

Date	Name	Operation	Occupation	Cause
14 January	Sphampano Machenene	Beatrix	Miner	Rail-bound equipment
3 February	Mxolisi Cekiso	Beatrix	Rock drill operator	Collapsed “plug” in ore pass
13 April	Mbuze Ncobela	Kloof	Team leader	Fall of ground
16 May	Seabata Khetla	Beatrix	Locomotive operator	Rail-bound equipment
6 June	Andile Nkwenkwe	Driefontein	Rock drill operator	Fall of ground
26 July	Nkosinathi Marumo	Burnstone	Labourer	Trackless vehicle accident
15 August	Thandisile Deku Rangwaga	Kloof	Mine sweeper	Fall of ground
4 September	Puseletso Molobogeng Mashego	Driefontein	Stoping team	Scraper winch
5 September	Geraldo Siteo	Kloof	Locomotive operator	Rail-bound equipment
20 September	Sibongile Ganithuli	Rustenburg	Team supervisor	Rail-bound equipment
10 November	Moagisi Selaotswe	Rustenburg	Sweeper	Trackless vehicle accident

Initially, the positive safety performance continued into 2018, with the entire SA region being fatality free for January 2018. Sadly, four recent fatalities at our SA gold operations in February 2018, brought to an end a 3.8 million fatality-free shift period at the SA gold operations and 3.6 million fatality-free shifts at the SA region as a whole.

Safety incidents are of concern to all of us. We are actively investigating what caused these incidents and will take necessary action to prevent them from occurring again. The Board and management of Sibanye-Stillwater extend their deepest condolences to the families, friends and colleagues of Ngobeni Solly Dumisani (Special Team Leader, Kloof), Dube Chicco Elmon (Winch Operator, Kloof), Mating Matela (General Miner, Driefontein) and Mncwazi Zanempi (Artisan Assistant, Driefontein). Our journey towards zero harm continues.

For comparative purposes, the US operations' total reportable injury frequency rate (TRIFR), measured per million hours worked, for the year was a record low of 12.7, an improvement on the 12.9 recorded for 2016. The East Boulder mine was free from lost day and serious injuries for the entire year and the US region reported no contractor injuries for the entire year. The SIFR is a new metric for the US region and has been calculated retrospectively to 2013. It should be noted that this is the combination of lost-time incidents and medically-reportable injuries. It does not reflect the SA region's similarly named TRIFR.



### SAFETY ACHIEVEMENTS 2017

#### SA region

Four million fatality-free shifts:	PGM operations
Three million fatality-free shifts:	Gold operations (achieved 4 January 2018) Kroondal Kroondal (Kopaneng)
Two million fatality-free shifts:	Kroondal (Simunye) Driefontein 2 and 4
One million fatality-free shifts:	Beatrix Driefontein 5

In addition, Beatrix and Driefontein were recognised at the annual MineSAFE awards in August 2017. They were placed second and third, respectively for having recorded the most improved safety performance during 2016/17.

#### US region

- Achieved 1.84 million fatality-free shifts
- Base Metals Refinery achieved 500,000 hours worked without a lost-time injury
- During 2017, East Boulder received the Montana Mining Association's Safe Work Practices Award for 2016

## SAFETY AND HEALTH FOCUS CONTINUED

### Safety performance statistics

	2017				2016		2015	2014	2013	
	Group	US region <sup>1</sup>	SA region		Group	SA region		Gold	Gold	
		PGM	PGM	Gold		PGM	Gold			
Fatalities	11	0	2	9	14	2	12	7	12	9
Fatal injury frequency rate *	0.07	0	0.04	0.09	0.10	0.09	0.11	0.06	0.12	0.10
Lost-time injury frequency rate *	5.78	7.73	4.69	6.32	6.62	4.84	6.99	6.74	5.87	6.13
Serious injury frequency rate *	3.59	2.42	2.59	4.11	4.16	2.88	4.42	4.68	3.88	3.50
Medically treated injury frequency rate **	2.60	24.65	2.44	2.24	3.85	5.72	3.47	3.60	3.37	4.32
No. of Section 54 work stoppages	230	na	26	204	226	55	171	109	77	55
No. of production shifts lost owing to Section 54 stoppages	238	na	49	189	402	245	157	70	99	35
No. of internal work stoppages ***	46,232	na	2,559	43,673	21,849	2,044	19,805	18,642	16,423	10,383

<sup>1</sup> For the period May – December 2017

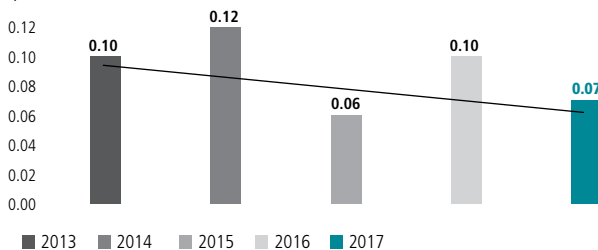
\* Per million hours worked

\*\* Also referred to as treat-and-return injury frequency rate (TRIFR). Includes certain minor injuries. MTIFR is based on the Bird model safety pyramid. Sibanye-Stillwater expects and encourages a higher rate than in other categories

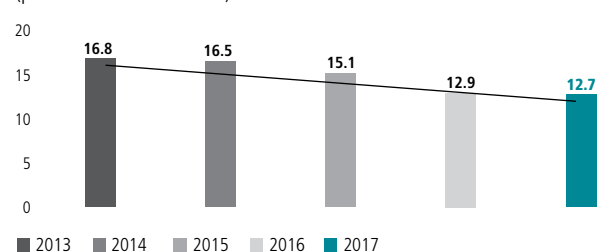
\*\*\* Internal stoppages and the related close outs are an integral part of Sibanye-Stillwater's risk management strategy (any person can stop a task or workplace until arrangements have been made to reduce high risk)

Note: Group data for 2016 includes the gold and PGM operations from the relevant dates of acquisition during the year while that for 2017 includes the PGM operations in the United States region from May 2017

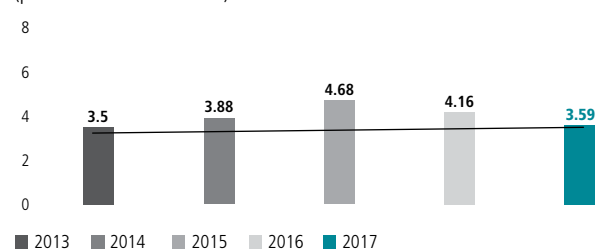
**SA region total reportable injury frequency rate**  
(per million hours worked)



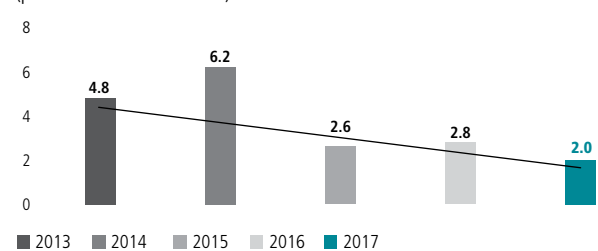
**US region total reportable injury frequency rate\***  
(per million hours worked)



**SA region serious injury frequency rate**  
(per million hours worked)



**US region serious injury frequency rate\***  
(per million hours worked)



\* Sibanye-Stillwater acquired the US operations in May 2017. Previous years are included for comparative purposes only as these represent safety statistics reported by Stillwater Mining Company

Note: Rates are measured per million hours worked



### BEATRIX POWER FAILURE IN FEBRUARY 2018 – KEY FACTS

- At 2am on 1 February 2018, a violent storm destroyed main and backup Eskom power lines that feed the Beatrix 1, 3 and 4 shafts, causing a total power outage
- Back-up power was quickly restored to Beatrix 4 shaft where 272 employees were safely brought to surface
- Emergency generators hoisted another 64 employees to surface at 1 shaft
- Damage to critical technical equipment meant 955 employees at 3 shaft could not immediately be brought to surface. They remained in a safe and well ventilated area where we were able to communicate with them, provide food, water and medical assistance
- Water and 1.2 tonnes of food was provided to employees while they were waiting underground
- Although all employees could have been evacuated at any time through the secondary escape way, it was agreed that in the interest of safety, employees should remain at 3 shaft until power was restored. At no point were employees in danger and management was in total control of the situation throughout
- Eskom restored power at 2:30 am on 2 February 2018 and the remaining 955 employees were hoisted to surface

For further details on this, see the case study on the Beatrix power failure available on [www.sibanyestillwater.com](http://www.sibanyestillwater.com)

### ADDRESSING OUR SAFETY PERFORMANCE IN THE SA REGION

Key themes underlying our safety campaigns in 2017 were zero harm and saving lives. Addressing and improving safety is a continuous process. Work begun in 2016 on the Sharp! Sharp! safety campaign to embed a culture of safety within Sibanye-Stillwater continued into 2017, with this campaign now well-entrenched within the SA region, where its roll-out at the gold and PGM operations was completed. While an inordinate amount of time is spent on safety training at our South African operations, improved safety performance benefits Sibanye-Stillwater's overall performance and the achievement of our strategic objectives.

In addition to the Sharp! Sharp! campaign's 12-point safety plan, a top five action plan was compiled for the SA PGM operations, focusing on the five main causes of accidents at these operations. They are conveyors, trackless mining equipment, falls of ground, explosives and material handling. A similar action plan is being designed for the gold operations, based on six key areas: falls of ground, rail-bound equipment, slip and fall, material handling, winches and rigging, and eye injuries.

In line with the theme of 'saving lives', the second phase of the Sharp! Sharp! campaign was launched, based on the slogan I will not look the other way – an extension of the previous year's slogan, I am safe! We are safe! Phepha mina! Phepha zonke! This campaign, rolled out at miner level at all gold and PGM operations in 2017, will encourage accountability for safety incidents or substandard conditions. The Pinagare industrial theatre has played a key role in the roll-out of safety messages and campaigns.

### PROMOTING OUR SAFETY MESSAGE

Industrial theatre has proven to be a successful medium for communicating safety messages. Industrial theatre groups were established initially in the Rustenburg area by unemployed people who have now established a formal company, Pinagare. Sibanye-Stillwater briefs the theatre group on a particular safety theme to be promoted and a 'play' incorporating song and dance to tell a story is choreographed on the subject. Industrial theatre, which is very well received by employees delivering an immediate buy-in from employees, has been used extensively and successfully at Kroondal in the past. It is currently being used at the gold mines where the logistics are different and more challenging with the larger numbers of employees (i.e. the audience) at these operations.

## SAFETY AND HEALTH FOCUS CONTINUED

“All employees receive regular safety training with new employees undergoing initial training and other employees receiving refresher training.”

Four major focus areas of safety-related work in 2017 were:

- **Learning from fatal accidents**

Sharing the critical lessons learnt from fatal accidents throughout the organisation and applying the necessary controls to prevent future incidents of a similar nature is critical in reducing the incidence of fatalities. So too is identifying high-potential hazards that warrant an immediate stop-and-fix action. Formal monthly close-out meetings following a fatal accident ensure that any resulting revisions to standards and controls, re-engineering and training are rolled out across the organisation. All such remedial actions are actively monitored, with all levels being involved, from mine overseer to mine management to executive management. Internal processes are supported by bi-monthly meetings at the MHSC, with peers in the sector, and the DMR, in line with efforts to secure tripartite commitment to more effective safety management processes across the sector, and to facilitate the sharing of information and lessons learnt.

- **Improving our safety culture**

To insure continuous improvement in safety and health, we acknowledge that our culture needs to improve in order to achieve this.

In November 2017, the Safety Culture Transformation Process, an initiative supported by the Board and Executive management commenced at Kloof 3 and 4 shafts. Culture surveys have been concluded at these shafts and the findings are being evaluated for incorporation into the next phase. There has been ongoing parallel engagement with leadership at all levels in the gold operations, focussed on creating the belief that fatalities and injuries can be eliminated.

- **Involved leadership**

Allied to this is the implementation of visible-felt leadership, the principle of which is being entrenched throughout the organisation, from executive and senior management level to supervisory level at the stope face. In line with this, the second phase of training to embed a culture of safety at Sibanye-Stillwater includes roll-out of a leadership engagement tool kit.

- **Integrating safety**

A multi-disciplinary integrated safety management system, Syncromine, is being implemented. This system, which involves human resources, rock engineering, occupational health, hygiene and mineral resource management, will link the workplace, technology and people. Implementation has begun with all the gold operations online. Roll-out at the PGM operations is to begin at Kroondal. A steering committee is in place to oversee this process which is IT-dependent and to ensure all necessary training is conducted. The short-term focus is to ensure that the mineral

resource management and rock engineering disciplines are closely involved in the planning phase. This system will assist with improved compliance and optimised production planning.

### ADDRESSING OUR SAFETY PERFORMANCE IN THE US REGION

The US region is fully committed to the slogan “Everyone goes home safe – every day”, which is familiar to all employees and is being integrated into the culture of the business. It is also a part of the GET (guide, educate and train) safety and health management system that is being implemented at all sites in the US region.

Cross pollination of safety regimens between the US and SA regions has begun in the form of the sharing of systems and reports, and in-depth discussions on safety.

#### US region: Injuries by category

	2017*
Rockfall	3
Struck by objects (tools, equipment etc.)	8
Caught in/between	3
Strains	3
Operating equipment	1
Operating jackleg	3
Eye injuries	3
Chemical burns	1
Slip/trip/fall	2

\* For the period May – December 2017

During 2017, there were several initiatives to improve safety performance in the US region. East Boulder implemented a peer-to-peer workplace safety assessment as a tool to educate, communicate and create a heightened level of safety awareness.

While safety performance has been sound, several challenges exist, moving into 2018. With the J-M Reef ore body being narrow veined, most mining is accomplished through the use of pneumatic jackleg drilling. These drills accounted for approximately 25% of injuries in 2017. Stillwater received its first two drill-handling units and East Boulder received seven more units to continue reducing pneumatic jackleg drilling at the face. A jackleg drill weighs approximately 57kg, causing physical strain and exposure to injury. The new drill handling units are innovative, zero-gravity platforms on which jackleg drills can be mounted, allowing the operator to perform drilling work more safely, with far less strain and reduced exposure to falling material.

All employees receive regular safety training with new employees undergoing initial training and other employees receiving refresher training. The Blitz project expansion, which involves both increased staffing and infrastructure development on mine as well as downstream to the Metallurgical Complex has potential safety implications including the additional safety training required and the performance of new employees while construction activities are underway and non-routine tasks are more common.



## SAFETY TARGETS

For the SA region, targets for lagging indicators (injury frequency rates) for 2018 will be based on “cluster benchmarks” being set for similar operations. We will endeavour to maintain the significant improvements made in safety performance during 2017, while targeting an overall improvement of between 10% and 15% for all indicators.

In the US region, the safety goal remains Everyone goes home safe – every day. On our continued path to zero harm, the 2018 goal is to reduce reportable injuries by 10%.

## GOVERNANCE

Strict internal controls, procedures and systems are in place to ensure safe operations and that everyone goes home safely at the end of their working day.

In the SA region, the first line of responsibility is operational. The mine overseer is responsible for SA safety tracking and monitoring performance. Reports are presented to management, which in turn report to executive management and ultimately to the Social and Ethics committee and to the Board. Internal audit and the new multi-disciplinary Pivot system monitor various parameters.

As required by the South African Mine Health and Safety Act all employees are represented in formal joint management-worker health and safety committees to ensure that our occupational health and safety programmes are agreed and effective.

In addition to internal monitoring, Sibanye-Stillwater’s safety performance is also monitored by several external agencies such as DMR safety inspectors, who conduct unscheduled audits.

In the US region, the joint health and safety committees meet monthly at each operation and at the metallurgical complex to address safety concerns. Both salaried and bargain unit employees co-operate on daily safety audits (risk assessments of production activities). There are two such audit teams at Stillwater while, at East Boulder, peer-to-peer workplace assessments have been conducted to date with a safety audit team to be established during 2018.

Operationally, the vice president/general manager at each site assumes the first line of responsibility, and is supported by the safety department. The operations and safety departments submit regular reports and communicate directly with executive management so that they are kept fully informed.

The Federal Mine Safety and Health Act of 1977 of the United States established the Mine Safety and Health Administration (MSHA) which regulates operations at Stillwater and East Boulder through Title 30 of the Code of Federal Regulations. This regulation includes quarterly external inspections of all facilities by the MSHA.

The Occupational Safety and Health Act of 1970 established the Occupational Safety and Health Administration which regulates the metallurgical complex through Title 29 of the Code of Federal Regulations. Other United States’ governmental divisions such as the Bureau of Alcohol, Tobacco, Firearms and Explosives, the Nuclear Regulatory Commission, and the Department of Homeland Security also regulate operations in the interests of public security.



## SAFETY AND HEALTH FOCUS CONTINUED



### FUTURE FOCUS

The focus in 2018 the SA region will be on the continued roll-out of the behaviour-based training programme as well as finalising implementation of the integrated safety management system. The theme for 2018, "Let's make this year our safest year yet", will be supported by the roll-out of our safety culture transformation programme. The roll out plan for the gold operations has been finalised, targeting 15 Shafts across the Kloof, Driefontein and Beatrix operations over a period of approximately 18 months.

Overall, the focus will remain on improving safety performance by 10% annually and fostering a culture of zero harm to employees.

In the SA region, safety regulations for trackless mechanised mining machinery aimed at preventing collisions are being introduced. The first milestone related to proximity detection was met in June 2017 with further impending regulatory requirements scheduled for June 2018 and December 2019. A group wide collision management risk assessment has been conducted which informs the related operational strategy for future implementation.

In the US region, the focus in 2018 will include the continued implementation of the drill handling units that began in 2016. These units allow the US region to improve workplace safety by moving away from conventional pneumatic jackleg drilling.

Given the high incidence of hand injuries in the United States region, the US PGM operations are implementing a compulsory impact and cut resistant glove policy in the workplace, with exceptions noted. Other operations will be observing and noting the results. Stillwater and East Boulder will both continue implementation of the Newtrax system that will aid equipment and employee location, prevent collisions and facilitate emergency evacuations.

At group level, there will be further cross pollination of information, procedures and systems between the US and SA regions, particularly at the mechanised operations in each region. This sharing of information will benefit both regions as operations learn from each other. A group-wide collision management risk assessment is to be conducted which will inform the related operational strategies to be implemented by the end of June 2018.

## HEALTH APPROACH

As with safety, our health model is based on Sibanye-Stillwater's health and safety policies and the proactive, effective management of employee health and wellbeing. The aim is to provide accessible primary healthcare so as to prevent, detect early and manage diseases, and ultimately prevent progression to disability. The early identification of health risks together with timely interventions and stringent application of the mandatory code of practice on the minimum standards of fitness to perform work at a mine are critical in ensuring that employees are fit, competent and healthy to perform their work.

Sibanye-Stillwater's healthcare model enables employees to optimise their health throughout their lives by helping them to make informed healthcare decisions. Healthy lifestyles are encouraged and this is supported by community infrastructure projects that provide access to affordable, quality healthcare. Strong interdependent relationships with local stakeholders, including the Department of Health, facilitate the integration of regional healthcare systems to ensure the effective use of resources.

A range of healthcare products, including medical aid schemes and statutory insurance benefits for occupational injuries and diseases, are available. Employees are given a choice in selecting their medical aid cover and can choose either the company-funded product or one of several designated medical schemes, including Sibanye-Stillwater's own in-house medical scheme. Medical schemes and options are chosen carefully in terms of strict criteria so that employees receive benefits at an affordable cost.

## PERFORMANCE 2017

### ADDRESSING HEALTHCARE IN THE SA REGION

While the focus in the initial three-year roll-out of our proactive healthcare model, our *Road map to health*, was on optimising resources, improving efficiencies and providing excellent clinical care, this was expanded in 2017 to include excellence in disease prevention and wellness.

Our *Road map to health* began with an emphasis on clinic-based preventative healthcare rather than curative hospital-based care. These clinics, which are situated on-site at the shafts and at the single-room accommodation complexes, close to the workplace, facilitate easy and immediate access to healthcare. As a result, the need for hospital beds on site for those suffering from acute and chronic illnesses has fallen to zero compared with 870 since 2013. In cases where employees require hospitalisation an appropriate contracted facility provides the services. There has also been a corresponding decline in those needing home-based care – from 109 people in 2014 to 22 in 2017. Our home-based tuberculosis (TB) care programme caters for post-employment care of occupational TB and includes contact screening, clinical management as well as an uninterrupted supply of medication.

The number of recently retrenched employees requiring post employment TB care has reduced from 34 in 2014 to 21 in 2017

In addition, our transformed healthcare system has led to a decline in deaths, medical incapacitation rates and hospitalisation. Screening for TB and HIV testing increased and clinical metrics for both programmes improved (the TB rate continues to decline and HAART adherence has increased to 95%).

In 2017, a rate of 15.7% of days lost due to absenteeism was recorded at the gold operations and services, a slight increase on the 15.1% and 15.4% recorded in 2016 and 2015, respectively. The increase relates to higher absentee numbers at the Cooke operations during the year while these operations were still operational facing closure. At the SA PGM operations, initiatives similar to those at the SA gold operations are being implemented to manage absenteeism.

The total absenteeism rate for the SA PGM operations has reduced to 15% in 2017 from 20% in 2016 and the sick leave to absenteeism rate has also declined from 6.62% to 4.69% in 2017.

Our healthcare model has earned national and international recognition from the global Chief Medical Officers (CMO) Network and the Department of Health with the publication of case studies on developing a national case management framework based on the Sibanye-Stillwater model.

### FOCUS ON WELLNESS

Our *Road map to health* has been expanded to include wellness so as to prevent disease and to promote wellbeing for life. Our wellness programme takes into account both physical, social and mental health. Early in the year, Sibanye-Stillwater successfully participated in a global employee wellness initiative aimed at encouraging participants to increase their levels of physical activity and fitness. In all, around 1,900 people from seven companies in nine countries participated. Of these 452 were from Sibanye-Stillwater. The four-week challenge, run under the auspices of the CMO Network, promoted a better understanding of the health concerns of working people and how to address them. Results indicated that at the end of the challenge, there had been a statistically significant improvement in participants' physical health and mental wellbeing. The challenge highlighted the positive role of cardio-respiratory fitness in particular in preventing disease.

An initiative, *My wellness* (an application developed by *Technogym*), focused on improving levels of cardio-respiratory fitness, will be rolled out at all South African operations early in 2018. Sibanye-Stillwater's information and communication technology function is assisting with the customisation of software and programming necessary to monitor people's activity and fitness levels for use on mobile phones. The aim of this initiative is to make taking care of one's health a way of life. It incorporates safety aspects and extends beyond the workplace, to the home and to the world at large. In so doing, employees are encouraged to take greater responsibility for their health and quality of life.



## SAFETY AND HEALTH FOCUS CONTINUED

The application will be available worldwide, including the US region. We will be able to use this platform to run corporate challenges globally and track employee health indefinitely.

### INTEGRATION OF THE SA PGM OPERATIONS INTO SIBANYE-STILLWATER'S HEALTH MODEL

Good progress was made with the integration of the SA PGM operations into the group healthcare systems. The compulsory health offering includes voluntary counselling and testing for HIV/Aids. There are four critical areas in this offering. They are: emergency medical services, occupational health, primary healthcare and wellness, and case management.

The healthcare system inherited at these operations was predominantly medical aid-based. During the open period for medical schemes, when members review their options, Sibanye-Stillwater will take the opportunity to run initiatives informing employees of the benefits of the various schemes available to enable employees to make informed choices for healthcare funding.

An unfortunate consequence of membership of medical schemes is, owing to confidentiality, the lack of data on HIV/Aids and occupational diseases. Management is investigating amending contracts with these schemes to enable access to this unlinked anonymous data which is important in planning and budgeting.

Partnerships with the medical schemes in the running and financing of clinics in the Rustenburg area in the vicinity of the SA PGM operations have continued. Strategically in this area, we aim to address healthcare equity by improving access to healthcare for employees' families, many of whom remain vulnerable.

In addition, to promote health, nutritional supplements (Future life and a traditional beverage -mageu) are being provided to employees at the SA PGM operations as part of the mid-shift feeding programme. In addition to the provision of safe drinking water the SA PGM operations have included a food at work programme whereby employees can purchase a nutritious meal on mine, which is part of the Group's fundamental principle of ensuring a healthy, fit, competent and safe productive workforce.

### HEALTH MANAGEMENT

Healthcare management continued to focus on disease and case management, including lifestyle diseases (hypertension, diabetes and asthma) as well as infectious diseases such as HIV/Aids and TB, and the management of occupational diseases in particular silicosis and noise-induced hearing loss.

#### HIV/Aids and TB

Retention rates for highly-active antiretroviral treatment (HAART) are currently 95% across the SA region, in line with our aim to ensure employees remain healthy and productive. Results at Beatrix, which previously had the worst retention rates, were particularly pleasing. Here the HAART retention rate increased from 72% in 2016 to more than 98% in 2017.

At the SA PGM operations, just over 1% of those employees tested for HIV/Aids tested positive, which is well below the national prevalence rate of 7.1% (Stats SA 2012/2013, population

aged 15-24). We suspect that due to predominant external provision of medical scheme funded healthcare, the data may not reflect the true picture of below national rates for HIV. The rate for the year at the gold operations was 10.2%. In addition, one would speculate that this trend is expected in that employees who have already been diagnosed HIV positive and are enrolled on formalised disease management programmes do not retest.

Simultaneously, the rates of TB have continued to decline, again especially at Beatrix where much focus has been on ensuring compliance to both TB and HIV protocols. This has been accomplished by strict adherence to follow up consultations and active laboratory monitoring of patients by partnering with a research laboratory and integrating electronic systems.

In addition, our transformed healthcare system has led to a decline in deaths, medical incapacitation rates and hospitalisation. Screening for TB and HIV testing increased and clinical metrics for both programmes improved – the TB rates continue to decline, with a reduction of 25% in cases observed at the Gold operations and a reduction of 12 % for the SA region as a whole, while the HAART adherence rate at one year has increased to 95%.

#### Silicosis

Sibanye-Stillwater is participating in industry efforts to develop and maintain a database of former employees and is tracing people who have left the company's employ. These efforts relate to work being done by the SA gold industry working group on occupational lung diseases (OLD), such as silicosis, which is allied to the Department of Health's Project Ku-Riha. This project is aimed at ensuring that claims for compensation by mineworkers with OLD are paid speedily and efficiently. Sibanye-Stillwater is one of seven South African mining companies participating in the gold industry working group.

To date, 1,986 Sibanye-Stillwater claimants received R33.9 million in payouts, of the total R250 million paid by the Compensation Commissioner for Occupational Diseases industry wide in 2017. In 2018, we will embark on a joint initiative with AngloGold Ashanti and Harmony to contact former employees and their dependants in the West Wits region.

In addition, as part of the implementation of section 189 of the Labour Relations Act retrenchment process, a specific form, known as the V12 Form has to be completed in which a person's contact details are provided for future benefit medical examination as mandated by Occupational Diseases in Mines and Works Act (ODMWA). In addition, those people receiving treatment who are retrenched receive three-months' treatment on their departure and their medical history is transferred to a clinic of their choice, within the Southern African Development Community (SADC). This applies to clinics beyond South Africa's borders. Policies and procedures are in place in case of retrenchment to ensure that the needs of those who are on HIV/Aids and TB treatment programmes are taken into account. In fact, Sibanye-Stillwater ensures that retrenched employees are formally registered on a post-employment programme which ensures continuity of care, drug supply, laboratory screening and ongoing medical support until treatment has been completed.

## South Africa – healthcare funding (R million)

	2017			2016	2015	2014		
	Regional total	SA region		Group	SA region		SA region	
		PGM	Gold		PGM	Gold		Gold
Medical schemes	714	404	310	679	400	278	296	282
Company funded	324	21	303	336	31	305	323	357
Compensation for occupational injuries and diseases* (Rand Mutual Assurance Company)	191			178	52	125	115	106
<b>Total*</b>	<b>1,229</b>	<b>425</b>	<b>613</b>	1,193	483	709	733	745

\*Healthcare funding costs exclude Occupational Diseases and Mine Act Dust Levies for both Gold and PGM operations

## South Africa – how employee healthcare is funded

No. of employees	2017			2016	2015		
	Regional total	SA region		Group	SA region		
		PGM	Gold		PGM	Gold	Gold
Principal medical scheme members	30,854	22,465	8,389	28,555	20,624	7,931	8,416
Company funded employees	30,696	21	30,675	32,677		32,677	31,419
Total employees	61,550			61,232		39,835	
% Employees on medical schemes	50%			47%		21%	

## South Africa – medical conditions under management

	2017			2016	2015		
	Regional total	SA region		Group	SA region		
		PGM	Gold		PGM	Gold	Gold
Chronic medical conditions (schemes)	13,532	8,546	4,986	13,242	8,451	4,791	4,700
Chronic medical conditions (company)	8,978	–	8,978	9,790	–	9,790	8,814
<b>Total</b>	<b>22,510</b>	<b>8,546</b>	<b>13,964</b>	23,032	8,451	14,581	13,514



## SAFETY AND HEALTH FOCUS CONTINUED

### South Africa – HIV/Aids and voluntary counselling and testing (VCT) and HAART

	2017			2016			2015	2014
	SA region			SA region			SA region	SA region
	Total	PGM	Gold	Total	PGM	Gold	Gold	Gold
VCT offered	51,116	25,008	26,114	54,541	27,226	27,225	23,538	–
VCT conducted	20,326	9,932	10,394	28,171	16,728	11,989	8,505	5,590
HIV-positive	1,168	113	1,055	2,284	650	1,634	1,929	1,169
Proportion of workforce tested	29%	40%	23%	39%	62%	25%	18%	13%
New recipients of HAART <sup>1</sup>	843	Unknown	843	928	Unknown	928	875	548
Cat 3-8 employees on HAART	5,688	0	5,688	5,561	Unknown	5,561	5,023	4,604
HAART patients who are employees <sup>4</sup>	9,761	3,133	6,628	9,925	3,545	6,380	5,750	5,283
Employees who have left HAART <sup>2</sup> programme	46	0	46	86	Unknown	86	127	57
HIV prevalence <sup>3</sup>	6%	1%	10%	8%	4%	13%	22%	21%

<sup>1</sup> Entry-level mining employees (Category 3-8) employees

<sup>2</sup> Employees who left the HAART programme within 12 months of starting antiretroviral therapy. These include those retrenched employees with ill-health, and any other labour-related terminations

<sup>3</sup> The prevalence rate reported is based on the number of employees testing positive as a percentage of the total number of employees tested in a given period and not as a percentage of the total workforce

<sup>4</sup> HAART patients alive and on treatment

### South Africa – TB: number of new and retreatment cases

	2017			2016			2015	2014
	SA region			SA region			SA region	SA region
	Total	PGM	Gold	Total	PGM*	Gold	Gold	Gold
TB	623	148	475	707	73	634	744	832
Cardio-respiratory TB	570	148	422	618	73	545	679	715
New cases of drug resistant TB	28	0	28	24	Unknown	24	29	
New cases of multi drug resistant TB	17	0	17	16	Unknown	16	14	34

\* Health data for the Platinum Division (Kroondal and the Rustenburg operations) covers the entire 12 months of 2016. Tuberculosis data collection for the Rustenburg operations has been improved with inputs from the medical administrators. Sibanye-Stillwater is currently in discussions with the Medical Bureau of Occupational Diseases regarding outstanding payments for dust levies due prior to the acquisition of the Rustenburg operations

### South Africa – occupational health management

	2017			2016			2015	2014
	SA region			SA region			SA region	SA region
	Total	PGM	Gold	Total	PGM	Gold	Gold	Gold
Medical surveillance and certificate of fitness examinations – total	138,173	52,852	85,321	140,359	52,408	87,946	84,022	72,082
Employees	87,084	21,673	65,411	108,135	39,145	68,990	69,294	63,338
Contractors	51,089	31,179	19,910	32,219	13,263	18,956	14,738	8,744
Days lost due to health related absenteeism	826,475	321,104	505,371	817,075	340,408	476,667	478,568	414,424

### South Africa – occupational diseases – number of cases reported

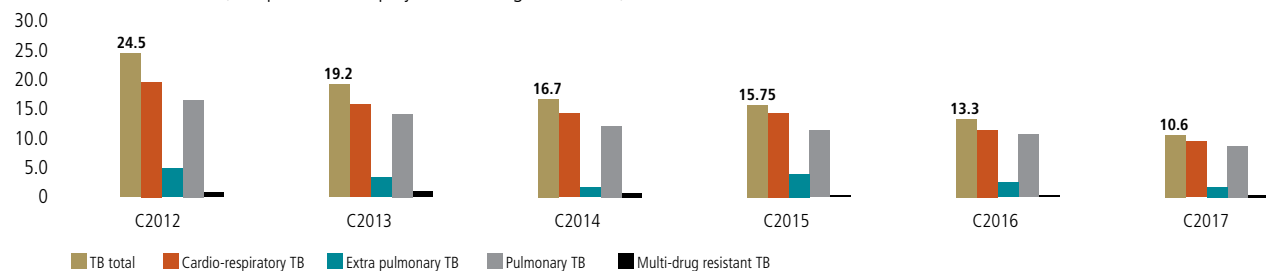
	2017			2016			2015	2014
	SA region			SA region			SA region	SA region
	Total	PGM	Gold	Total	PGM	Gold	Gold	Gold
Silicosis <sup>1</sup>	261	68	193	240	89	151	186	264
Chronic obstructive airways disease <sup>2</sup>	50	13	37	46	16	30	57	45
Noise-induced hearing loss <sup>3</sup>	193	100	93	188	62	126	105	138
Employees and contractors at risk	61,873	24,931	36,942	67,466	26,884	40,582	37,850	36,361

<sup>1</sup> Number of cases reported includes both new and resubmission cases. Exposure to free silica (SiO<sub>2</sub>), also known as crystalline quartz, found across a broad range of industries, including mining, cement manufacturing and quarrying, reaches the small airways of the lungs and forms tiny nodules (pulmonary fibroses), resulting in silicosis

<sup>2</sup> Chronic obstructive airways disease (COAD) is characterised by chronically poor airflow, resulting in shortness of breath, coughing and sputum production. Long-term exposure to smoking, and particulates associated with air pollution as well as genetic predisposition, cause an inflammatory response in the lungs, resulting in a narrowing of the small airways and breakdown of lung tissue, known as emphysema or chronic bronchitis

<sup>3</sup> Number of cases reported. Diagnosis of noise-induced hearing loss (NIHL) is made on assessment of the percentage hearing loss from baseline audiograms with NIHL defined as a shift in excess of 10% that has manifest over a prolonged period after repeated exposure to noise levels in excess of 85dBA

#### Incidence rates of TB (rate per 1,000 employees, including contractors)



#### Diesel particulate matter at the SA PGM operations

The International Agency for Research on Cancer in June 2012 declared diesel exhaust to be a Group 1 Human carcinogen. Currently in South Africa there are no regulatory limits to control exposure to diesel particulate matter (DPM), the Mine Health and Safety Act (MHSA) does however oblige mining companies to conduct risk assessments and institute mitigation measures for any health and safety risk. All operations (gold and PGM) currently have DPM sampling programmes in place to assess levels of personal exposure, this is compared to a benchmark of 0.2mg/m<sup>3</sup> total carbon as recommended by the Chamber of Mines (this is in preparation for future alignment with the limit in the USA of 0.16 mg/m<sup>3</sup> (TC)). We have adopted the NIOSH 5040 methods for DPM analysis. At the mechanised sections at our PGM operations, lower sulphur diesel is being used (50ppm), and ventilation for dilution and vehicle maintenance are the primary controls, while diesel particulate filtration is also being considered. At the SA gold operations, much older diesel engines are in use and dilution ventilation with diesel engine maintenance are the primary controls.

#### Impact of social factors on health

A pilot study has been conducted at Beatrix, a high-burden health region, to help identify the social determinants of health (SDH). These include variables such as the circumstances in which people are born, grow up, live, work, the systems in place to deal with illness and a wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies, development agendas, social norms, social policies and political systems (World Health Organisation's (WHO's) definition of the SDH). For the study, 93 people were interviewed and the results are currently being validated by the universities of Pretoria and the Witwatersrand. A particular aspect of this study will be to understand employees' perceptions of their own health and health practices, reasons for stress and coping mechanisms as well as participation levels in wellbeing activities.

Sibanye-Stillwater is also investigating stress factors in the work environment that may affect health and treatment retention rates. This will help us create a deeper understanding of employees' circumstances and behaviours which will better help us to develop policies which may effectively address certain SDH.

## SAFETY AND HEALTH FOCUS CONTINUED

### United Nations Sustainable Development Goals

Work is currently being undertaken to align Sibanye-Stillwater's health roadmap with the United Nations Sustainable Development Goals 2015-2030, and in particular goal 3, good health and well-being (SDGs). Goal 3 relates to universal access to good healthcare and equity in healthcare. Sibanye-Stillwater is well placed to meet the targets related to these goals which are:

- Compulsory employee membership of medical aid schemes which includes cover for spouses (mothers) and child care benefits. This will help to ensure access to universal health care, to reduce both mother and child mortality rates and to provide universal access to sexual and reproductive healthcare, among other health-related services. Through our association with medical aid schemes, we support research into and the development of vaccines for those diseases most affecting our employees and communities. While all employees have the right to join a medical aid scheme, only 50% of the workforce are covered by such schemes
- Our alignment with national HIV/Aids and TB milestones, as well as the work we are doing to meet the United Nations 90-90-90 Aids and TB targets by 2020, will contribute to efforts to end these diseases
- The *My wellness* programme will help indirectly to reduce the incidence of premature death as a result of non-communicable diseases, to combat substance and alcohol abuse, and also to encourage improved, safer behaviour on the roads and so reduce death and injuries as a result of road traffic accidents. This ties in too with our safety value – I am healthy and fit to do my work. Allied to this initiative is our smoking policy aimed at making the workplace safer and healthier
- Our health and safety practices are aligned with the Mine Health and Safety Council's (MHSC) milestones to substantially reduce deaths and illness owing to occupational exposures to substances hazardous to health ,and safety risks
- Our investment in developing the expertise and knowledge of health and wellness personnel
- The early detection, reduction and management of health risks are integral to our health model

The targets set out in these goals are to be met by 2024. We have developed responses to these MHSC milestones and are implementing them in the South African operations. These interventions are continuously improved upon as newer methods and technologies become available.

Health has adopted the SDGs which replace the Millennium development goal of the World Health Organisation (WHO).

### HEALTHCARE IN THE US REGION

There are no major work related healthcare concerns among employees in the US region.

Noise in the US region is addressed through the Hearing Conservation Program. Employees whose workplace exposes them to certain levels of noise are enrolled in this program. They are given training about the effects of noise on hearing loss, physiological issues, and PPE and its use and limitations. Employees enrolled in the Hearing Conservation program are given yearly audiograms to monitor any noise induced hearing loss.

### DIESEL PARTICULATE MATTER

Emissions from the extensive use of diesel-powered machinery in an underground mining environment, if not properly managed and mitigated, can lead to health hazards for underground mining. We employ various measures to reduce those exposures and ensure we comply fully with the strict limits on diesel particulate matter (DPM) exposure for underground miners set by the US Department of Labor's Mine Safety and Health Administration. Enhancements to ventilation systems and modification of certain mining practices that tend to create concentrations of DPM have played an important role to maintain DPM levels within regulatory limits. So, too, has the choice of fuels for the equipment used underground.

All underground engines have been fitted with diesel particulate filters which studies have shown to be highly effective in reducing particulate matter, carbon monoxide and unburned hydrocarbon emissions from engines fueled by ultra-low sulphur diesel.

All heavy underground equipment is fitted with 100% efficient diesel particulate filters, light equipment below a certain horsepower (such as man-trip trucks) are fitted with 50-55% efficient filters.

### INTERNATIONAL DEVELOPMENTS

Within the business community, Sibanye-Stillwater has raised its health profile and publically committed to improving the health of employees internationally by influencing stakeholders through the CMO Network. To this end, Sibanye-Stillwater has committed to addressing four broad issues relating to the workplace health which include antimicrobial resistance, obesity, mobility and mental health. A write-up of a case study on mental health involving Sibanye-Stillwater has been distributed by the CMO Network globally. The case study unpacks our multidisciplinary approach to mental health issues as well as recognising the impact of social determinants on employee wellbeing.

During 2017, much progress was made internationally affirming Sibanye-Stillwater's commitment to global health issues. We participated in work streams leading to the WHO's global ministerial conference on ending TB in the sustainable development era which was signed off by 122 health ministers in Moscow at the end of 2017. The Moscow declaration marks a turning point in the development of a global strategy to address the TB epidemic and lays the foundation for the development of a global strategy to address the TB epidemic and for an accelerated political response in advance of the United Nations High Level Meeting (UN HLM) on TB in 2018.

## HEALTH GOVERNANCE

### SA REGION

In addition to internal monitoring, Sibanye-Stillwater's health activities are monitored by several external agencies. These include:

- Registrar for Medical Schemes
- Department of Health audits of our primary healthcare, occupational health facilities and pharmacies (all of which are licensed)
- DMR (conducts ad hoc and annual audits of mine health, safety and surveillance systems)
- Audits and reviews relating to the Compensation for Occupational Injuries and Diseases Act and the Occupational Diseases in Mines and Works Act, Mine Health and Safety Act and health related acts
- Annual KPMG audits of health statistics and reporting of specific indicators
- Chamber of Mines health policy commitments and reporting

### US REGION

- Mine Safety and Health Administration
- Occupations Safety and Health Administration
- KPMG audits of health statistics and reporting of specific indicators
- Montana Department of Labor and Industry – Employment Relations Division
- US Department of Labor – Employee Benefits Security Administration
- US Department of Health and Human Services
- Blue Cross Blue Shield of Montana (a healthcare services company)
- Brokers and actuaries at HUB International – health and welfare plan consultants
- Benefit Plan Committee

## FUTURE FOCUS IN 2018

The focus in the SA region will be on:

- Increasing our effectiveness in preventing disease and disability, and on promoting fitness and health
- Continuing alignment with the SDGs
- Improving processes and quality standards towards accreditation with OSHAS 18001 and ISO 45001
- Continued support of the human resources and safety functions
- Enhancing regional synergies with the Department of Health

In the US region an assessment of alignment of the region with the SDGs and goal 3 in particular will be established and expanded if required.

