

SCOPE OF SUPPLEMENTAL INFORMATION

The supplemental information on our website supplements the integrated annual report and covers the financial year from 1 July 2012 to 30 June 2013 (FY13). It follows a standalone but similarly comprehensive report for FY12. In line with its commitment to the principle of integrated reporting, Harmony Gold Mining Company Limited (Harmony) has again incorporated its broader social, environmental and economic performance throughout this report in line with the requirements of the King Report on Governance for South Africa (King III).

The aim of this information is to give all our stakeholders shareholders, investors, employees, suppliers, regulatory authorities and governments around the world - an informative description of Harmony's business and operations, their impacts and the sustainable value we create.

The integrated annual report and supplemental information cover all Harmony's wholly owned operations in South Africa as well as its joint venture in Papua New Guinea (PNG). They exclude discontinued operations, unless otherwise stated.

This data has been compiled in accordance with the G3 guidelines of the Global Reporting Initiative (GRI) and King III. All information covers FY13 with comparative annual data provided for information. Financial data is aligned with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board, the South African Companies Act, No 71 of 2008 (the act) and the Listings Requirements of the JSE Limited (JSE).

Any material restatements and changes are fully described in the relevant sections or at the beginning of the integrated annual report if their impact is company-wide.

Group material issues are disclosed in the integrated annual report, while discipline-specific issues precede each section in the supplemental information.

Harmony is committed to accurate, meaningful reporting. Acknowledging that this is a process of continual improvement, key sustainability indicators are externally assured each year, while preparatory work is completed on other indicators to ensure we steadily expand the scope of assurance. The report of our external assurers is on page 86 of the integrated annual report.

Detailed disclosure on Harmony, including regulatory filings, press releases, stock exchange announcements and quarterly reports, is available on our website at www.harmony.co.za.

#### **FEEDBACK**

We welcome your feedback to ensure we report on issues that matter to you. Go to www.harmony.co.za for the feedback form.

Specific comments and suggestions can also be directed to: **Riana Bisschoff** Company secretary riana.bisschoff@harmony.co.za

Throughout this report, unless otherwise stated:

- \$ or dollar refers to US dollars
- K refers to the currency of Papua New Guinea (kina)
- All production volumes are in metric tonnes (t)

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For a full glossary of terms and acronyms please see our supplemental information suite at www.harmony.co.za/investors

# Safety and Health 🥥 🥩 🔍 🧐

### HIGHLIGHTS

- 10% improvement in fatal accidents (9 versus 10 in FY12)
- 20% improvement in lost-time injury frequency rate in South Africa (6.03 versus 7.54 in FY12)
- No fatal accidents in Papua New Guinea (PNG)
- Six new health hubs being established, with Tshepong commissioned at year end
- Benefits of proactive healthcare strategy emerging
- Success of at-work management programme at mine level evident in declining sick absenteeism

### Challenges

- Maintaining antiretroviral treatment regimes at Kusasalethu during temporary closure
- Meeting industry health and safety milestone targets in South Africa.

## **Material issues\***

- Fatal accidents
- Fall-of-ground related accidents
- Tramming and transport-related accidents
- Vehicle-related incidents at Hidden Valley, PNG
- Pulmonary tuberculosis and HIV-related illnesses
- Absenteeism and entrenching proactive healthcare
- Noise-induced hearing loss (NIHL)
- Silicosis cases submitted and cases certified.

\* The section on Harmony's approach to sustainability (page 72 of the integrated annual report) details how we identified our material issues

### Management approach

The safety and health of our people is not only a moral obligation, it contributes to the bottom line by improving productivity and creating a sustainable business for all shareholders, including our own employees

Our aim is to eliminate all work-related injuries and illness. Mining is our profession, but safety is our priority.

To accelerate the execution of our safety and health strategy and continually improve safety performance in South Africa, each operation is monitored monthly using a formal review system, while major safety issues are reviewed annually. Guided by an occupational health and safety policy, our cooperative health and safety management framework involves the active participation of management, unions and Department of Mineral Resources (DMR) representatives at all levels, and is aligned with the Mine Health and Safety Act (MHSA). Some of the key tenets of our safety strategy are: behavioural aspects, competency training and development, as well as research and new technologies. We believe safety in the workplace can be addressed only through a cooperative approach that ensures the right infrastructure is in place – from systems and planning, to communication and training. We also believe management and employees must accept joint responsibility for their actions. It is therefore imperative that the working environment empowers people – management, supervisors, workers and union representatives – to stop work and withdraw from the mining area when they feel it is unsafe, or prevent others from acting in an unsafe way.



### Safety and health SOCIAL PERFORMANCE CONTINUED

Equally, safety is about attitudes and mindsets. Our focus on implementing, communicating and reinforcing safety in the workplace is ongoing, supported by a centralised safety function that coordinates initiatives between regions and mines.

Safety is a key performance indicator for management and a key component of performance reward for our people. Historically, safety-related bonuses were based on reactive performance measures – we are now developing ways to assess safety performance on proactive measures.

In line with 2013 industry milestones and our own targets, safety management and performance targets were integrated into performance parameters at each operation. The 2013 safety milestone is a fatality rate of 0.03 per million hours worked, as agreed by the chief executives of all mining companies and the Mine Health and Safety Council at the 2003 industry safety summit. At Harmony, the steady improvement in the lost-time injury frequency rate (LTIFR) is encouraging and proves that the foundation of better safety performance built over recent years is intact. We accept that we have some way to go to reach the industry goal for reducing fatal accidents: of 0.11, Harmony's rate is at its lowest in ten years but we will continue striving to meet the milestone target of 0.03 and achieve our aspiration of operating with zero fatalities.

To achieve our primary objective of eliminating work-related injuries and illness, health and safety is an agenda item on all union and management engagements.

Health and safety committees are in place at all operations, as required by the MHSA. These committees comprise management and elected employee representatives to ensure the active participation of our people in safety and health management. All safety representatives receive additional training in line with Mining Qualifications Authority (MQA) standards. The committees meet monthly to discuss employee health and safety issues, and formal health and safety agreements are in place at all operations to deal with related issues. There were also 48 full-time health and safety stewards at South African operations in FY13.

Safety performance in PNG is monitored by Harmony's regional executive committee. As this is a line management responsibility, safety managers at each operation report through appropriate channels to this executive committee, which in turn reports to the Harmony executive committee, social and ethics committee and technical committee of the board. Safety strategy is guided by Harmony's health and safety policy.

Integral to safety is the health and well-being of our employees and communities. As such, we focus on

preventing all illnesses – from occupational illnesses to lifestyle diseases such as hypertension, diabetes and HIV – through ongoing medical surveillance, active case finding, early detection and treatment as part of an integrated managed healthcare system. As part of our strategy, we actively participate in state initiatives such as tuberculosis (TB) and HIV programmes.

Harmony Healthcare provides tertiary, secondary and primary healthcare as well as occupational health services to around 80% of employees through company-managed healthcare facilities and preferred provider arrangements. The health and well-being of the balance of Harmony employees, their dependants and contractors is ensured through medical aid membership or third-party service providers as part of their employment benefits.

In calendar 2013, we will complete the process of establishing health hubs at our South African mines, moving from a curative model to a preventative model (shown below) that has moved the full spectrum of medical services closer to our people.



In compliance with South Africa's MHSA, medical surveillance is ongoing at the company's dedicated centres. A total of 44 321 medical surveillance examinations were conducted in FY13 (FY12: 47 894) including entry examinations (for new employees), annual examinations, exit (end of service) examinations, and out-of-cycle examinations (for transfers, for example). In PNG, 17 898 health contacts were made at all Morobe Mining Joint Venture (MMJV) medical centres (FY12: 18 840).

Our reporting on occupational health statistics is aligned to international standards such as the International Labour Organisation (ILO), as well as the MHSA. Where employees are diagnosed with a compensable occupational illness, we submit details on their behalf to the relevant bodies, depending on the illness and associated legislation. Harmony contributes annually to these bodies:

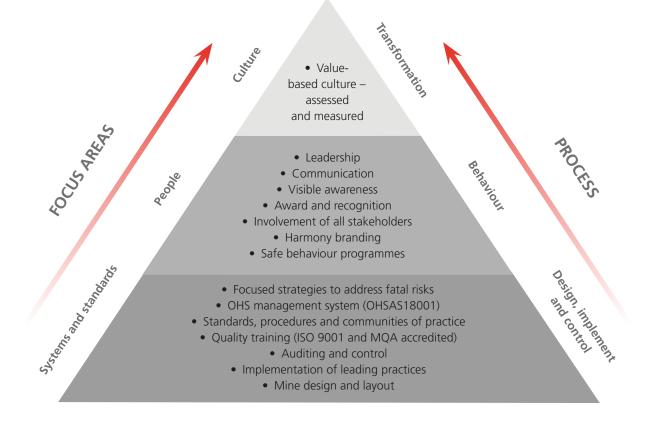
 Medical Bureau for Occupational Diseases and Compensation Commissioner of Occupational Diseases – a statutory body responsible for certification and compensation under the Occupational Diseases in Mines and Works Act of 1973

• Rand Mutual Assurance Company – an industry body providing compensation under the Compensation for Occupational Injuries and Diseases Act of 1993.

In PNG, an integrated business information system provides numerous administrative functions for health, safety, risk management and human resources. This includes a medical register that tracks and reviews each patient's progress from initial health contact throughout the treatment process.

### Our approach

### To create a culture where health and safety is the first priority



### Focused on improving safety culture

In recent years, we have steadily improved all safety indicators, but recognised that we needed to accelerate the pace to achieve our short- and long-term objectives.

The results of a significant change in our approach in FY12 are evident in the review period, although we still have some way to go in closing the gap between our current safety performance, 2013 industry milestones and our goal of zero harm.

Our revised occupational health and safety strategy focuses on entrenching the foundation for a healthy and safe environment, and recognises the importance of leadership and employee attitudes towards health and safety. The diagram above outlines this strategy and focus areas to achieve a culture where health and safety are the first priorities and zero harm our goal.

The basics, at the bottom of the diagram, are the foundation of our strategy, and stem from an in-depth understanding of the operational health and safety risks at every Harmony site. Risks are controlled through mine design and planning processes, and implementing standards, codes of practice and procedures. To ensure standards are effectively implemented, employees undergo skills training at our training centres and workplace competency assessments. Underground supervision and audits ensure these standards are firmly in place.

Initiated by the chief executive, over the past two years, we have instituted a focused and multifaceted drive to catapult Harmony from a reactive to proactive approach (see page 5) by improving the safety culture across all operations. Elements of this approach include:

- High-level internal health and safety reviews
- Adopting leading health and safety practices
- Improving the Harmony safety risk management system
- Integrating proactive key performance measures in incentive schemes
- Continuously improving standards and procedures
- Implementation of e-learning to improve safety-related training
- Harmony culture alignment programme has been implemented
- Integrating safety management standards (management systems) and safety culture initiatives (people) to function as a single strategy as illustrated above.

### **EXTERNAL GAP AUDIT**

An external gap audit against global standards was performed for Harmony's South African operations in the prior year. Identified critical shortcomings in safety and health management are being incorporated into an improved safety and health management framework for Harmony, which will be aligned to the OHSAS 18001 for occupational health and safety international standard. Expert task teams have been established to review and finalise this framework. The trial phase of an integrated system to manage risks is under way at Doornkop. This R23-million project is a significant part of our strategy to become proactive in managing safety.

### **INTERNAL SAFETY AUDITS**

In the short term, a high-level internal audit team of mining and safety experts was established to verify conditions in high-risk areas at our operations and establish the effectiveness of existing management systems to ensure the safety of employees. The chief executive accompanies the audit team once each month. The team also reviews the level of implementation of strategic health and safety programmes and standards at all operations.

By year end, audits had been completed at ten South African operations. Each audit report, with the actions implemented by management to ensure gaps are effectively addressed, is reviewed by the chief executive and other executives at every operation.

### **PERFORMANCE OVERVIEW**

Our priority is to provide safe and healthy workplaces. Progress against targets is monitored by two board committees (technical, and social and ethics).

Objectives for EV12	Drogroce
Objectives for FY13	Progress
In South Africa, focus areas included: Implementing improved group occupational health and safety management system	Under way
Alignment and roll out of safety culture programme	1
Continuation of group safety audits	1
Implementing leading practices in:	
Preventing fall-of-ground	1
Operating rail-bound equipment	1
Dust elimination	1
Noise control.	1
In <b>PNG</b> , the focus was on: Further strengthening the solid relationship between management and the workforce, in the best interests of all stakeholders	
Visible felt leadership	
Safe-act observation programme (behaviour-based safety)	1
Establishing life-saving rules	1
Focus on closing out incident investigations timeously	1
More structured incident investigations	1
Managers' monthly inspections	Under way
Supervisor weekly inspections.	Under way

In South Africa, Harmony's safety initiatives during the review period were aligned with the culture transformation framework agreed between industry stakeholders (DMR, Chamber of Mines and organised labour).

In PNG, the joint venture partners are making good progress in developing a sustainable business management system aligned to International Standards Organisation (ISO) standards. After the phase 1 certification audit in 2012, the system will be externally audited every two to three years against these standards. Identifying and managing workplace hazards is an important element in improving safety performance in PNG, with site-level risk assessments ensuring each job is completed safely and efficiently. In addition, the hazard identification and risk assessment (HIRA) approach has been successfully implemented, supported by ongoing training and coaching. Performance is measured against set indicators.

### SAFETY PERFORMANCE

Regrettably, nine employees died in mine-related accidents in FY13 at our South African operations (FY12: 10). We extend our condolences to their families, friends and colleagues and reiterate our commitment to reaching our goal of zero fatalities.

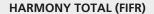
In line with values and policies Harmony provides the family of the deceased with counselling and financial assistance.

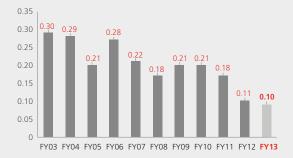
The South African operations' fatal injury frequency rate (FIFR) improved by 8% year on year to 0.11 (FY12: 0.12) and the LTIFR improved to 6.03 (FY12: 7.54) per million hours worked. In PNG, the FIFR remained 0.00, while the LTIFR was 0.12 (FY12: 0.45). Commendably six South African mines have operated for a full year without a fatality – the challenge is to reach this milestone at all operations.



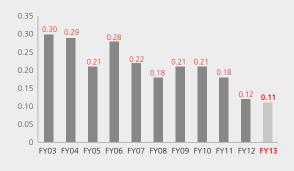
SA OPERATIONS (LTIFR)







#### **SA OPERATIONS (FIFR)**



A total of 20 236 shifts were lost due to occupational injury in South Africa (FY12: 23 497), and 12 in PNG, year-on-year improvements of 14% and 84% respectively. Shifts lost are a useful indication of the severity of occupational injuries (Harmony records 90 shifts lost for each fatality).

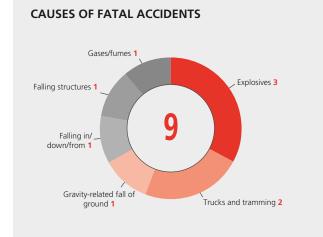
All graphs are per million hours worked.

### **IN MEMORIAM**

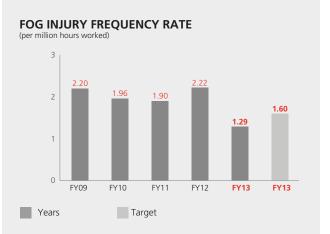
Harmony pays tribute to those who lost their lives at work in FY13:

Date	Operation	Individual	Occupation	Cause
17 July 2012	Unisel	Mzwandile Bhudaza	Driller	Fell down orepass
12 September 2012	Joel	Sera Nkhache and Simon Retselisitsoe Molefi	Acting team leader and driller	Explosion while charging up in development end
12 November 2012	Kusasalethu	Eliot Zungu	Driller	Explosion from misfired hole in development raise
7 December 2012	Tshepong	Sechaba Moses Nkhatho	LHD operator	Struck by load haul dumper
6 February 2013	Saaiplaas 3	Tatale John Naile	Pre-cutter	Structure collapsed prior to demolition
6 March 2013	Masimong	Rameno Steven Tapolosi	Driller	Fall of ground
25 April 2013	Phakisa	Potso Peter Kotjomela	Winch operator	Underground fire
16 May 2013	Kusasalethu	Lebohang Michael Chake	Team leader	Re-railing a mechanical loader

The primary causes of fatal accidents in FY13 are shown below. Fatal injuries related to falls of ground improved by 67% year on year (from 3 to 1) while trucks and trammingrelated fatalities regress from 1 to 2.



The fall-of-ground injury frequency rate has improved 42% year on year, reflecting a major safety focus in recent years. Regrettably, a period of 15 months without a fatality of this nature ended in the third quarter after a fatal accident at Masimong.



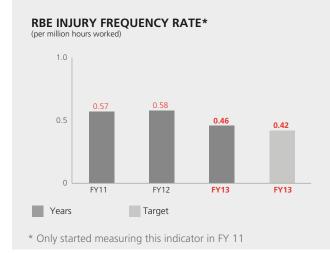
In FY13, Harmony initiated a three-year grant totalling R4,7 million to the University of Pretoria to establish a chair in rock engineering and numerical modelling in the mining industry. This focused research on a safer working environment in the hard-rock mining industry offers benefits for all stakeholders, and will strengthen the partnership between academic institutions and our industry in developing further safety improvements.

Harmony's ground-control strategy has been converted into draft e-learning format and all blasting certificate holders were earmarked for this training at the different facilities. A test version of the e-learning material was installed at Doornkop and demonstrated in April 2013. This will be implemented at all training centres in due course.

**Update on industry fall-of-ground leading practice** All South African operations have implemented the entry examination, bolting and netting, and making-safe leading practice developed by Mining Industry Occupational Safety and Health (MOSH). Bolted netting in stopes and development faces has been rolled out as a leading practice at all Harmony underground operations. A minimum standard for nets was developed and implemented through the procurement department.

The trigger action response plan (TARP) is a systematic process where fall-of-ground related hazards are identified, escalated if necessary and treated by the correct level of supervision. Joel served as the demonstration mine for this initiative, which proved very successful. All operations will adopt this leading practice in FY14, with roll out already under way at three mines.

Rail-bound equipment (RBE) audits were conducted at all underground operations during the year. These verified compliance to the RBE code of practice, and specifically focused on locomotive conversions and rail conditions to comply with national standard (SANS 10339) specifications.



During the year, we began installing a proximity detection system, an electronic device fitted to mobile machinery that detects other mobile machinery nearby. The operator receives a visual and audible warning signal to which he can react if another vehicle approaches. Linked to this is the Guardcom system, which incorporates a handheld unit that allows the guard to electronically signal the driver and stop the train by activating an emergency stop button in an emergency. The unit also has a tilting device that stops the locomotive automatically if it exceeds a certain angle, ie should the guard stumble and fall. Implementation will be phased over 18 months as it involves much training, changing behaviour, amending infrastructure and fitting units to locomotives. This initiative will put Harmony in the forefront of this safety area in the South African gold mining industry. The Mining Charter target of training 2% of the workforce annually as health and safety representatives was again achieved during the year.

To improve safety awareness, e-learning programmes (spanning safety and refresher training) are in place at five operations. Pictorial briefs are also used at shaft level to communicate mine accidents and other safety messages. We have implemented virtual reality training to improve risk identification as part of e-learning.

In South Africa, the Department of Mineral Resources (DMR) remains vigilant about ensuring compliance with safety legislation. Harmony continues to work closely with the department to resolve issues, minimise safety stoppages and ensure that all safety standards are implemented and enforced at our operations. In FY13, our South African operations received 78 section 54/55 instructions. Three operations were completely stopped and two were partially stopped for a specific period after serious/fatal accidents. Most instructions were issued to rectify deviations from standards and focused on specific sections of each operation.

In PNG, we face different safety risks, given the terrain and level of safety awareness among the workforce. Vehicle operation has been identified as our primary safety risk. A vehicle focus group was established, led by senior managers from each site, and a risk workshop convened to identify opportunities to improve vehicle movement safety. The workshop focused on:

- Increasing the use of data from the in-vehicle monitoring system (a live tracking system installed in some vehicles)
- Reviewing road signage and road conditions, and making improvements
- Increased driver behaviour monitoring through a dedicated traffic focus group
- Improved escort control for delivery convoys
- Advertising and education sessions.

Ongoing activities include reviewing and updating traffic management plans and driver competency assessments. The team is also developing procedures and audit protocols.

The second key risk in PNG involves aviation activities, highlighted by two helicopter slinging incidents in the third quarter at our exploration operations. A review of third-party aviation providers, aligned with the basic aviation risk standard, was completed in the final quarter. No immediate safety or flight issues were identified, but general recommendations were made for improvement and adherence to current procedures.

At the Wafi site, the focus was on addressing vehicle-related risks. This included speed checks, vehicle inspections and ensuring all drivers are properly licensed and authorised. Road reviews and upgrades have reduced risks.

### SAFETY ACHIEVEMENTS DURING THE YEAR

Fatality-free shifts	Fall-of-ground fatality-free shifts
<b>1 000 000</b> Target 3	+1 000 000 Target 3
Kusasalethu Tshepong	Bambanani
1 500 000	+1 500 000
Masimong	Tshepong Unisel
Free State metallurgy Doornkop	Bambanani and Steyn 2
Target 1	Target 1
Kalgold pit Hidden Valley	Evander
2 000 000	+2 000 000
PNG total	Bambanani, Unisel and Steyn 2 Kusasalethu
2 250 000	+2 500 000
Phakisa	Masimong Phakisa
2 750 000	+6 000 000
Free State surface	Doornkop

### **Criminal mining**

In South Africa, illegal mining is a concern at many Free State gold operations. In addition to significant safety and health risks for our own employees and for the illegal miners, there is a substantial associated cost in terms of destroyed assets and infrastructure, security, and loss of skills (if employees are involved). Ultimately, this impacts on investment and job creation.

Illegal mining is a complex issue, and there is no simple solution. We are encouraged by the rising level of cooperation between mine managers, authorities, unions, employees, communities and non-governmental organisations.

We are doing everything reasonable and practical to address illegal mining proactively. This includes liaising closely with the South African Police Service (SAPS), Department of Justice, private security companies and affected communities. After successful lobbying by the industry, criminal mining has recently been seen by the courts as organised crime, compared with trespass charges in the past. We welcome this amendment, as we believe a prison sentence is a greater deterrent than a monetary fine.

While these criminal activities continue at both surface and underground operations, enhanced access control and underground security processes are proving effective. In the review period, technical and physical security measures at our metallurgical plants were upgraded.

We continue to focus on communicating the risks and consequences of illegal mining and fraud to our own workforces, and our zero-tolerance approach has seen the number of employees dismissed for related offences.

### Occupational health

### **PROACTIVE HEALTHCARE**

The proactive health strategy is focused on keeping employees well, thus improving work attendance as well as individual capability. This increases productivity, profitability and ultimately ensures a sustainable business. Focal areas for occupational health include:

- The medical fitness of workers, particularly in a workforce with a relatively high proportion of older manual workers. In South Africa, this is exacerbated by the impact of HIV on general health, and the number of HIV+ people diagnosed with TB. Multidrug-resistant TB cases have a high rate of HIV association in general
- Surveillance for occupational illness, predominantly occupational lung disease, NIHL and heat stress
- Legal compliance to various acts, with the DMR being the main government stakeholder in South Africa
- Improved use of systems in monitoring compliance, data accuracy, improved surveillance and ultimately health

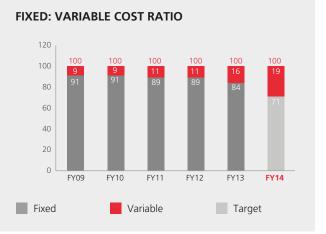
Our proactive approach to healthcare is beginning to deliver the expected benefits. As part of this R100 million investment, six new health hubs in South Africa are at various stages of completion. Tshepong was commissioned in the first quarter of the new financial year, with the remaining hubs due for commissioning by December 2013. In tandem we have trebled the number of medical professionals, with teams of 25 – 35 per hub providing a 24-hour service. Each team has a social worker, health educator, primary healthcare doctor and occupational health specialist.

As demonstrated by the success of the pilot hub at Target in the prior year, these hubs provide an integrated, proactive healthcare service to bring primary, occupational and wellness facilities closer to the mine. While improving the quality of healthcare, this model also reduces the cost of centralised healthcare services and improves labour availability and productivity. Other key benefits include:

- Aligned to proposed national health insurance processes and requirements
- Compliant with DMR requirements
- Individual risk profiling, proactively managed by significantly enlarged, multi-disciplinary team
- Active case finding
- Continued surveillance
- Holistic approach to providing healthcare
- Proactive employee assistance programme
- Improved health insurance cover for most employees extended to contractors in the review period
- Improved quality assurance.

One of the most apparent benefits of our new approach is the dramatic decline in sick leave. We continue to focus on managing absenteeism, which declined across the company to 4.6% during the year (FY12: 5.1%). Absenteeism due to illness decreased by 20.5% at mine level. Acknowledging the potential economic and social impact of a rising absenteeism rate, we are establishing multi-disciplinary attendance and absenteeism review boards at mine level to proactively manage sick absenteeism and absenteeism related to psychosocial issues. Benchmarking Harmony against its peers and companies of similar scale, we set 3.5% as an acceptable sick absenteeism rate. In keeping with wellness and fitness to work, an amended return-to-work strategy is being piloted.

The annualised cost of healthcare delivery is around 10% of our total labour cost. Previously fixed costs absorbed 91% of the South African healthcare budget. Under the new healthcare model, fixed costs are down significantly as are shifts lost per medical visit. The contact rate per employee per month has decreased from 4.3 when primary healthcare was still mostly nurse-driven to 2.5 currently with a doctor focus, and is expected to decrease further.



Audits currently include external audits by the National Nuclear Regulator (quarterly), DMR (frequently), Council for Scientific and Industrial Research (heat tolerance screening annually) and as arranged by management with external specialists. An in-house function for objective auditing has also been established. This resource will also assist with standardisation and documentation.

In PNG, medical centres at Hidden Valley, Wafi and Wau provide full-time primary healthcare and occupational health surveillance to employees, dependants and the local community. While the Wau centre is only available to dependants and community members for emergencies, four community health facilities provide services at Babuaf (near Wafi) and Nauti, Kwembu and Winima (near Hidden Valley).

The key medical issue in our PNG operations remains upper respiratory tract infections, although more employees presented with malaria symptoms during the period. There was also an increase in vector-related cases, specifically Dengue and Chikungunya fevers.

Based on an occupational hygiene assessment conducted at the Hidden Valley operation four years ago, activities do not exceed regulatory standards. The assessment spanned respirable dust, respirable crystalline silica and noise monitoring. It was conducted according to occupational hygiene practice and Australian standards for noise and dust monitoring (AS 2985-2004 and AS 1269.1-1998). Processes at the Hidden Valley medical centre are currently being reviewed to further strengthen governance practices.

During the year, hospitals in Lae and Bulolo were temporarily closed for cost reasons, highlighting the lack of governmentfunded infrastructure and clinicians to serve the community. A regional strategy is being developed by MMJV, focused on providing effective occupational healthcare in the absence of efficient government health services.

#### **OCCUPATIONAL LUNG DISEASES**

The primary occupational lung diseases in the South African gold mining industry are silicosis and TB, both long-term concerns for Harmony. While chronic obstructive airways disease does occur, it is less frequent.

#### Silicosis

Silicosis is linked to long-term exposure to high quartz silica dust and can cause increased susceptibility to TB. Harmony is on track to meet the following Mine Health and Safety Council (MHSC) milestones:

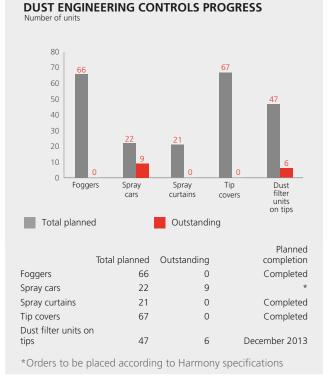
Industry milestones				
Milestone	Progress			
• By December 2008 – 95% of all exposure measurement results will be below the occupational exposure limit for respirable crystalline silica of 0.1mg/m <sup>3</sup> .	• Harmony's compliance improved steadily through the year to 93.5%, although still below the milestone requirement. Every measurement above 0.1mg/m <sup>3</sup> is investigated and addressed. Harmony has recorded a significant improvement in the year-on-year comparison of exposure groups (see section on dust control below)			
• From December 2013 – using present diagnostic techniques, no new cases of silicosis among previously unexposed individuals (not exposed before 2008, or entering the industry in 2008).	• This milestone is monitored by the submission department, in-house technology and Rand Mutual Assurance (see section on silicosis – performance below).			

#### **Dust control**

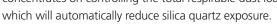
Harmony's approach to minimising dust includes a range of engineering controls, in addition to two focal areas:

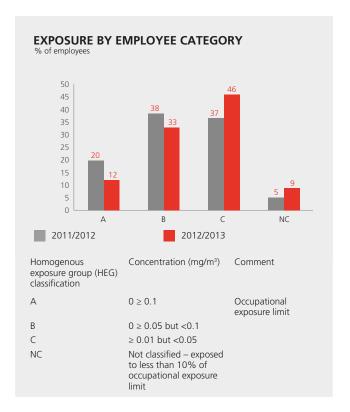
- Installing fogger systems at strategic positions Harmony adopted this practice as part of the MOSH initiative, and has installed 66 foggers in areas of potential high dust exposure as planned. All Harmony's South African operations are members of the MOSH community of practice for adoption and meet regularly to discuss progress and challenges in implementing leading practices.
- Footwall and sidewall treatment in intake airways Intake airways are treated to allay dust by means of spray cars at pre-determined intervals or with fixed spray systems that can be activated manually or automatically on pre-set timers.

Progress on implementing engineering controls



The silica quartz content of dust is highly variable. This presents a challenge in measuring the effectiveness of engineering controls to minimise dust in the workplace. Harmony thus concentrates on controlling the total respirable dust load,





In general, the dust loading decreased from the prior year. Dust control in stoping workplaces remains a concern which is being addressed through training and awareness programmes. All development ends are equipped with water blasts to settle dust directly after the blast.

#### Silicosis – performance

To date, no new cases of silicosis have been reported among individuals who entered the industry since 2008.

In FY13, 772 suspected (submitted) cases (FY12: 872) were reported to the Medical Bureau of Occupational Diseases, and 185 cases certified (FY12: 161). The annual rate for certified cases fluctuates depending on backlogs at the reporting authority.

Silicosis continues to receive heightened attention, and Harmony, as a member of the Chamber of Mines, is participating in processes to address issues relating to historical silicosis cases. In August 2012, Harmony and its subsidiaries were served with court papers entailing an application by three former employees requesting the South Gauteng High Court to certify a class action for silicosis sufferers. In essence, the applicants want the court to declare them as representing a class of people for purposes of

instituting an action for relief and to obtain directions as to what procedure to follow in pursuing the relief required against Harmony and its subsidiaries. Harmony has retained legal counsel in this regard. Due to the limited information available on any claims and potential claims and the uncertainty of the outcome of these claims, no estimation can be made for the possible obligation.

#### **Tuberculosis**

TB remains one of the most pressing health concerns in South Africa and in the gold mining industry. While the trend across the industry is gradually declining, incidence rates are still unacceptably high.

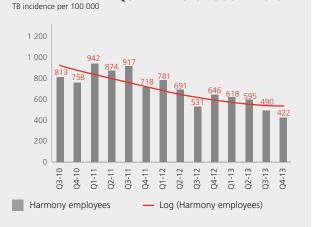
In line with the World Health Organisation (WHO) and the national TB strategic plan in South Africa, our comprehensive TB control programme includes early case findings, directly observed therapy short-course (DOTS), chemotherapy and a radiological TB screening project. Harmony exceeds the national plan in certain respects such as:

- Identifying early TB resistance through state of the art specialised generic and biochemical tests and analysis
- Investigative diagnostic tests for early detection
- 241 ultraviolet lights for infection control have been installed in a phased programme targeting risk exposure areas at our mines
- Annual X-rays of employees exposed to dusty work environments for early TB detection
- Ongoing monitoring and education.

Our initiatives are evident in a declining TB rate despite high HIV infection levels. This reflects our longer-term TB programme, with multiple elements including ultraviolet lighting, case finding, reduced delays to treatment and improved antiretroviral treatment uptake. A drive to identify latent TB cases by means of history of persistent coughing, weight loss, loss of appetite and night sweats is also under way. This is aligned with the national tuberculosis strategic plan 2012 – 2016.

In FY13, 629 cases were certified (FY12: 568). In PNG, only two cases of TB have been reported over the last year.

Contractors are currently referred to state facilities for TB treatment and excluded from the calculation above. For optimal infection control, it is preferable to manage all TB cases, including contractors. As such, the TB management programme will be extended to contractors to facilitate better control of contract-worker TB, certificates of fitness and potential cross-infection of Harmony employees.



**TB INCIDENCE PER QUARTER 2010 TO JUNE 2013** 

In March 2013, we commissioned the Human Sciences Research Council (HSRC), which specialises in TB and HIV research, to assess TB control in our Free State operations to identify and prioritise key attributable factors. This is expected to be complete by the end of October 2013, with key activities of the assessment including:

- Secondary analysis using data from TB clinics
- Qualitative and quantitative assessments from interviews
- Review of TB documentation
- Infection control assessments in living environments and healthcare facilities.

### Multidrug-resistant TB

Multidrug-resistant TB (MDR TB) remains a growing concern for the industry. Treatment is expensive and protracted (eg 18 months' treatment means many more shifts lost), affected employees are unlikely to return to work that involves risk, and the disease has a higher mortality rate despite treatment.

With 36 cases of MDR TB diagnosed in FY13 (FY12: 33), the incidence rate per 100 000 of 113 is up 11% on the 97 recorded in the prior year. At year end, there were 68 employees on MDR TB treatment compared to 95 at the end of FY12, reflecting the protracted treatment period.

therefore be placed on monitoring compliance at the

MDR TB cases are also identified using sophisticated technology (GeneXpert/PCR – polymerase chain reaction) tests where needed and treated as soon as possible at specialised state MDR TB hospitals, supported by in-hospital supervision and outpatient follow-up later in the programme.

Given that MDR TB's association with HIV is almost 100%, this underlines the importance of the proactive integration of HIV and TB treatment (and data management) being developed in the company. Quality patient and data management and monitoring remain a universal challenge in TB management.

### **NOISE MANAGEMENT**

Harmony is committed to South African industry milestones for NIHL under the auspices of the MHSC:

Industry milestones	
Milestone	Progress
• After December 2008, hearing conservation programmes implemented by industry must ensure no deterioration in hearing greater than 10% among occupationally exposed individuals.	• To monitor compliance, Harmony implemented and diligently complies with an early hearing-loss industry standard set in December 2008. Meeting this milestone remains a challenge, as detailed below.
• By December 2013, total noise emitted by all equipment in any workplace must not exceed 110dB(A) at any location (includes individual pieces of equipment).	• All engineering equipment with noise levels above 110dB(A) has been fitted with sound attenuators. In addition, the baseline survey to identify noise levels from individual pieces of equipment is continually updated with new information from routine occupational hygiene inspections.
Harmony's strategy is to issue all exposed employees with personalised hearing protection devices, which reduce the noise level by 25 decibels. By year end, 96% of employees and 60% of contractors exposed to noise levels above	workplace and reporting compliance levels. Training in the use and benefits of these devices is part of e-learning material used during annual refresher training.
82dB(A) had been fitted with personalised hearing protection devices.	Detecting hearing loss is done by audiometric testing during annual medical examinations and is measured against the employee's baseline test. Early detection enables management
The number of personalised devices issued to date was 27 329 at year end (split 25 409 for employees and 1 920 for contractors). Encouragingly, contractor compliance increased	to counsel the employee at an early stage and to investigate the working area to prevent more serious loss of hearing.
notably during the year.	The project initiated at Oppenheimer Hospital in the Free State four years ago to detect NIHL (5 – 10% hearing loss)
Although we made good progress with issuing personal hearing protection devices during the period, a concern was raised by Harmony's high-level audit team about compliance in using these devices in the workplace. More focus will	early is now available at our healthcare facilities. This project is monitored through annual audiograms for all employees exposed to noise risk at work.

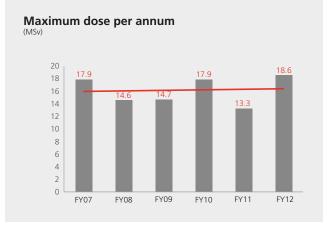
In FY13, the number of NIHL cases compensated dropped to 52 (FY12: 101). While we are committed to continuous improvement, the industry target to prevent any hearing loss of more than 10% against each exposed individual's baseline remains a challenge for Harmony.

#### **HEAT STRESS**

All operations have extensive refrigeration and ventilation measures in place to ensure temperatures remain within normal working ranges. Heat-tolerance testing and acclimatisation programmes support and protect employees exposed to excessive heat in the workplace. In FY13, 16 577 heat tolerance tests were undertaken (FY12: 20 472).

### RADIATION

Radon exposures on all Harmony operations are well controlled through systemic and operational controls and barriers. All South African operations comply with the dose limit of 100mSv in five years with a maximum exposure of 50mSv in a single year. Administrative controls are in place to ensure workers do not exceed the dose limits.



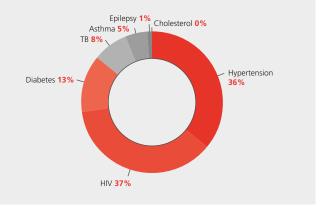
In addition to regular self-inspections and internal audits, the company achieved an average compliance index of 93% during 21 inspections and audits conducted by the National Nuclear Regulator.

Radiological clearances are being conducted at decommissioning sites to facilitate the future declassification of these areas.

### MANAGING LIFESTYLE DISEASES

At year end, around 40% of employees were on some form of treatment for chronic conditions, predominantly hypertension.

#### CURRENT DISTRIBUTION OF CHRONIC DISEASES



As part of our integrated approach to healthcare, we have set specific objectives for managing the most common diseases.

### Prevention, promotion and education

Harmony's health initiatives during the year focused on the most common diseases and are aligned with the national health calendar. The e-learning module of the formal Harmony induction programme covers these diseases. Other initiatives and objectives include:

- Quarterly pamphlets: covering HIV, TB and lifestyle behaviours
- Monthly management healthcare memorandum in line with national health calendar
- Mine-based health and safety topics focus on the most common diseases
- Health workers are being trained to help them recognise the most prevalent diseases
- Screening at all medical centres focuses on the most prevalent diseases at all visits
- Harmony buses are branded to educate employees on HIV matters and promote voluntary counselling and testing
- Education via podcast
- Education via LCD monitors that inform employees while working underground
- Disease management interventions
- Quality assurance is being strengthened to monitor the most prevalent diseases against national core standards.
  In addition, we are decentralising HIV clinics to the mines to encourage close individual monitoring by healthcare professionals.

#### Labour-sending areas

Harmony is piloting the Chamber of Mines health source referral system to improve cross-border communications and referrals.

### **COMMUNITY HEALTH**

In FY13, our PNG health team again worked closely with key stakeholders involved in delivering health programmes in Wau/Bulolo and Huon districts. Although there are many stakeholders who are willing to assist where possible, they are constrained by logistical and financial issues.

We are working with a non-profit partner, Oil Search Health Foundation (OSHF), to combat major community and employee health risks. The aim is to bring preventative medical treatment for the major employee illnesses (eg malaria, TB and gastro-intestinal) closer to the source of the problem. This will be done cost-effectively, and in a way that avoids the joint venture becoming the owner and operator of local community hospitals and clinics. By mid-year, OSHF had completed its baseline health assessment in our host communities. This will inform the structure and scope of the Medical Store Keeper (MSK) infrastructure in host communities. Following workshops with the joint venture's sustainability and medical staff, the scope of work was developed for phase 2, establishing the MSK system and training local (host community) staff to man the MSK points. A portion of this training is focused on collecting reliable data on the status of community health in each area.

This partnership strengthens MMJV's current community health programme which is supporting local health authorities in the Bulolo and Huon Gulf districts through the construction of four new aid posts, training village birth attendants and community health workers, and regular community health patrols focused on delivering basic health services, supplementary immunisation programmes and specialist treatment.

### **EMPLOYEE WELL-BEING**

#### HIV/Aids

Our comprehensive response to HIV/Aids is a critical component of our approach to sustainable development, given the significant impact on our employees, their dependants, and local and labour-sending communities in South Africa. This pandemic manifests in higher absenteeism, reduced performance and loss of skills to the company, as well as the economic burden on households when the breadwinner becomes ill or dies. There is also an increased financial load on state healthcare facilities.

In South Africa, HIV prevalence among our employees has declined to an estimated 24% from 27% in 2009. This is based on best-available state information and empirical

modelling undertaken for the company in 2012, as prevalence testing is legally prohibited. The data suggests prevalence levels in Harmony will continue to decline over the next ten years as increased awareness and testing, combined with the early introduction of antiretroviral drugs, culminate in a reduced infection rate nationally.

HIV/Aids is managed at three levels in Harmony:

- At clinical level HIV symptoms are managed at our healthcare facilities
- Company-wide and mine-specific initiatives mine-based HIV/Aids committees are an integral part of health and safety committees, which meet monthly
- Group policy and practice level monitored by a healthcare specialist.

The overarching strategy in managing HIV/Aids at each level is based on the following pillars:

- Health promotion aimed at changing attitudes to HIV and Aids using education and awareness programmes
- Preventative strategy to avoid or eliminate the threat of HIV and Aids as well as associated health risks, and to significantly reduce the number of new cases
- Evidence-based curative interventions to ensure appropriate treatment of all employees diagnosed with HIV and optimum outcomes at the point of care. This includes home-based care
- Monitoring compliance with treatment plans for affected individuals.

The programme is managed by an external provider using qualified registered professional nurses and protocols aligned with the South African Department of Health, World Health Organisation and the HIV Clinicians Society of Southern Africa.

The focus on HIV/Aids is part of a wider range of chronic diseases managed by Harmony. Because of the high coinfection rate between TB and HIV/Aids, all healthcare workers pay special attention to the needs of immunecompromised employees.

Voluntary counselling and testing (VCT) facilities, information and education are vital elements of our prevention campaigns. Equally, we focus on early detection which greatly increases the likelihood of long and healthy lives for employees. Harmony's approach – that HIV/Aids is a chronic illness and should be managed as such (like diabetes or hypertension) – has had a positive impact on the response to VCT.

In calendar 2012, we continued a year-long campaign targeting 100% VCT participation among our employees. By the end of FY13, some 90% of the Harmony workforce had received counselling, and 36% agreed to testing. Over the past 12 months, 6 490 individuals were tested (FY12: 9 861). Although we are making progress with counselling, the poor uptake reflects the stigma still attached to the pandemic. Over the past three years, 56 750 HIV/Aids tests have been performed in Harmony for employees, contractors and some community members.

In FY13, 4 460 employees participated in the highly active antiretroviral therapy (HAART) programme (FY12: 4 066). The average cost is R325 per person per month, or over R17 million per annum.

We encourage HIV-positive employees to participate in our wellness programme. This includes counselling on lifestyle choices and nutrition, treating opportunistic infections and antiretroviral therapy (ART). All employees have access to ART, either through group healthcare facilities or private medical aid schemes. State-funded facilities in South Africa also provide ART and some employees seek treatment there because of the stigma associated with the disease.

Harmony supports the national HIV counselling and testing (HCT) campaign and extended this to all primary healthcare facilities and occupational healthcare centres as an ongoing service in recent years.

#### Upper respiratory tract infections

Hidden Valley is some 3km above sea level but most employees are from lower, warmer areas. This regular altitude change contributes to respiratory ailments, mostly due to viral infections.

In FY13, 5 087 employees were treated for these complaints (FY12: 5 428). A successful programme to educate the workforce about these complaints, as well as gastro-intestinal hygiene, is being rolled out across the operations.

### Malaria

Malaria is endemic in PNG, with over 1.5 million cases identified each year by the WHO. We continue to support provincial programmes to eradicate at source, including spraying sites, distributing treated mosquito nets and providing treatment regimes. In addition, a residual spraying programme will begin in the Wafi-Golpu communities after completion of household and malaria surveillance surveys. This will then move to other high-risk communities in the Huon Gulf and Bulolo districts.

The MMJV also began issuing treated mosquito nets as standard personal protective equipment to all employees and contractors at all sites: over 5 000 treated nets have been distributed to employees and contractors to protect their families against the disease. Ongoing malaria awareness education is provided to employees, contractors and communities through community health meetings, inductions and toolbox meetings.

In FY13, 1 812 employees were treated for malaria (FY12: 1 871). The number of people presenting with malarial symptoms rose slightly during FY13, albeit from a low base in the first quarter. Because evidence suggests the problem is more community-based rather than as any direct result of our operations, we continue to distribute nets to employees for off-site protection.

DIRECTORATE AND ADMINISTRATION

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## TRADING SYMBOLS JSE Limited: HAR

New York Stock Exchange, Inc: HMY Euronext, Brussels: HMY Berlin Stock Exchange: HAM1 Registration number: 1950/038232/06 Incorporated in the Republic of South Africa ISIN: ZAE 000015228

#### FORWARD-LOOKING STATEMENTS

**Private Securities Litigation Reform Act** Safe Harbour Statement

This report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the safe harbour created by such sections. These statements may be identified by words such as "expects", "looks forward to", "anticipates", "intends", "believes", "seeks", "estimates", "will", "project" or words of similar meaning. All statements other than those of historical facts included in this report are forward-looking statements, including, without limitation, (i) estimates of future earnings, and the sensitivity of earnings to the gold and other metals prices; (ii) estimates of future gold and other metals prices; (v) statements regarding future debt repayments; (vi) estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices; (v) statements regarding future debt repayments; (vi) estimates of future capital expenditures; and (vii) estimates of reserves, and statements regarding future exploration results and the replacement of reserves. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, project or implied by such forward-looking statements. Such risks include, but are not limited to, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, project cot overruns, as well as political, economic and operational risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Annual Report on Form 20-F which is on file with the Securities and Exchange Commission, as well as the



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