

## HIGH POTENTIAL RISK CONTROL

In 2017, we commenced tracking Potential Fatal Occurrences (PFOs) – elevating the profile of high-risk events to ensure that these are treated with appropriate seriousness and concern. In 2019, we recorded 31 PFOs compared with 23 in 2018, an increase of 27%. Similar to our experiences in 2018, interactions with heavy mobile equipment, light vehicles and/or workers on the ground remained our primary hazard/risk (16), followed by suspended loads/rigging (5), struck by object (4), energy isolation (3), fall arrest/protection (2), and blasting (1).

B2Gold continues to utilize our Significant Incident Alert System to effectively share the lessons from the investigation of a high-risk occurrence or incident at one operation with all other operations. In 2019, we ensured that all operations were notified of every PFO event. Every site evaluated the incident and risks with respect to their operation and, where applicable, implemented proactive corrective actions to eliminate the hazard or lower the risk. In the fourth quarter, we commenced trend analysis across all operations using data captured from our Significant Incident Alert System to reduce risks and incidents based on frequency of occurrence.

## OCCUPATIONAL HEALTH

Our OHS Policy and seven Occupational Health Performance Standards provide the framework for eliminating workplace health hazards and occupational illnesses that arise from physical, chemical, and other workplace processes. These Standards require that occupational health evaluation, planning and design are integrated into our business development strategies, annually reviewed and independently audited to ensure continuous improvement. We also monitor all our sites to verify that they meet industrial hygiene best practice standards (ACGIH<sup>28</sup> standards, including regulations on dust, noise control, and ergonomics), and promote wellness (physical and mental health), including initiatives regarding fitness for work, personal nutrition, HIV/AIDS, malaria prevention, stress management, and fatigue management.

In 2018, we initiated improvements to our management of occupational hygiene which included internal capacity building, workplace assessments, evaluation and monitoring, exposure control management and the purchase of additional hygiene monitoring equipment. We continue to improve our management practices,

however, we are pleased to report that in 2019 there were no work-related occupational illnesses or diseases reported across any B2Gold operations. Additionally, our on-site medical clinics conducted 21,694 health consultations and medical treatments to our workers, their families and local communities. A vast majority of these consultations (95%) were for minor trauma, infections, and respiratory, dermatological, gastric and neurological issues. The remaining 5% were for more serious medical issues which required additional specialized treatment or care at regional hospital facilities. Early intervention and treatment by our clinic physicians and nurses provided positive outcomes in all of these cases.

With effective pre-employment medical screening programs, additional hygiene controls, increased education campaigns and vaccination programs within the local communities that have been ongoing since 2017, there were no reported occupational cases of hepatitis (A, B or C) and the number of cases of malaria and dengue fever was reduced for a third consecutive year with only four total reported cases affecting expat workers (3 malaria and 1 dengue). All our operations possess fitness facilities with exercise equipment and machinery for employees and contractors who work on a fly-in fly-out basis (FIFO). Food services and camp kitchens all provide healthy meal options to support nutritional health.

In the local communities, B2Gold's vaccination programs administered 1,850 dosages for hepatitis, yellow fever, dengue, cholera, TB and influenza. Results included a 22% decrease in clinic treatments for malaria and dengue from 2018, no reported cases of TB, and one occurrence each of typhoid and cholera which were treated at our medical clinics. The typhoid and cholera cases were reported to national authorities, who determined that these were isolated cases, not endemic, and initially contracted elsewhere.

Fatigue, particularly for our haul truck fleet drivers, remains a significant risk. However, with established management programs at both Otjikoto and Masbate, we continue to successfully identify and prevent incidents before an occurrence. In the second half of 2019, Fekola began a phased implementation of a fatigue management/monitoring system with its haul truck drivers (see story in the following column). The system and its benefits have been recognized and supported by the drivers with full implementation expected by the second quarter of 2020.

SDG covered by  
this initiative: **3**

## FATIGUE MONITORING

### EFFECTIVELY MANAGING ONE OF OUR HIGHEST RISKS

B2Gold identified that one of our highest operational risks is fatigue and as such we closely monitor this at every one of our operations. The primary purpose of our fatigue monitoring programs is to: a) ensure the health and safety of our workers by appropriately managing fatigue events and risks, and b) ensure a high level of operating efficiency by minimizing operator fatigue and distraction.

Managing fatigue effectively requires a multidisciplinary approach and does not rely solely on technology alone. In assessing symptoms, causes and approaches to address fatigue issues, we take a holistic approach that focuses on:

- » fatigue awareness counselling for operators;
- » supervisor training to manage fatigue;
- » improved fatigue reporting procedures; and
- » awareness campaigns for worker families to learn about the risks associated with fatigue and to encourage support at home.

The solution to address operator fatigue at B2Gold is one in which technology, training and awareness combine to make our operations a safer place to work. Accordingly, our Masbate operation has had a Fatigue Management program in place since 2010, and in the early part of 2019 the Otjikoto Mine successfully completed full implementation of its Fatigue Management program, including the OpGuard monitoring system across its mobile fleet. In the second half of 2019, the Fekola Mine commenced implementation of a Fatigue Management program including the implementation of the CAT DDS system. The initial trial period using 24 drivers over a one-month period resulted in a 98% reduction in fatigue events, and a 28% reduction in distracted driving events – an immediate positive impact. Work will continue with the implementation of the DDS system across the entire Fekola haul truck fleet in 2020<sup>29</sup>, subsequent to additional positive feedback from drivers and supervisors.