

Gold and gold mining's contribution to SDG 3 Promoting Good Health and Well-Being



About the World Gold Council

The World Gold Council is the market development organisation for the gold industry. Our purpose is to stimulate and sustain demand for gold, provide industry leadership, and be the global authority on the gold market.

We develop gold-backed solutions, services and products, based on authoritative market insight and we work with a range of partners to put our ideas into action. As a result, we create structural shifts in demand for gold across key market sectors.

We provide insights into the international gold markets, helping people to understand the wealth preservation qualities of gold and its role in meeting the social and environmental needs of society.

Based in the UK, with operations in India, China, Singapore and the USA, the World Gold Council is an association whose members comprise the world's leading and most forward thinking gold mining companies.

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Cover photograph:
Golden Star Resources Helping Babies Breathe Programme Ghana.

Introduction



SDG 3: Ensure healthy lives and promote well-being for all at all ages

SDG 3 focusses on challenges that relate to people's health. It seeks to reduce maternal mortality, eliminate preventable deaths of children under 5, reduce mortality from both communicable and non-communicable diseases, improve mental health, prevent and treat substance abuse, reduce road accidents, improve access to health care, and improve access to vaccines and medicines.

Introduction

In September 2019, at the United Nations General Assembly 74th Session, Dr Tedros Adhanom Ghebreyesus, Director-General at the World Health Organisation (WHO) said: "Our vision is not health for some; it's not health for most; it's health for all!"

Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development, and therefore reflected in the UN Sustainable Development Goals (SDGs), as SDG 3. The SDGs are a framework which was established in 2015 by the UN General Assembly with the mission to achieve a better and more sustainable future for all by 2030.

Gold is a precious metal which plays significant role in contributing to SDG 3. It is used in a number of unique and valuable healthcare applications. It is a critical material in many medical diagnostics, and is of increasing interest to companies developing innovative new ways to treat disease.

In 2020, the World Gold Council published a report *Gold Mining's Contribution to the UN Sustainable Development Goals*¹ which highlighted how gold miners contribute to 15 out of the 17 goals. This follow up paper focuses on SDG 3 from both a gold mining perspective but also how gold the metal is making a contribution.

In early 2020 we saw the beginning of the COVID-19 pandemic which has since evolved into a global health crisis, turning the lives of billions of people upside down. But it is not only the health implications that have affected us, the economies of many countries have been destabilised with serious knock-on effects to jobs and livelihoods in every corner of the globe. Amongst many other things, this has challenged the progress being made on healthcare provision in many areas, particularly developing countries, as resources and expertise have been diverted into responding to the COVID-19 pandemic. It is likely that these impacts will be with us all for decades to come.

Many World Gold Council Members operate in regions which are disproportionately impacted by healthcare challenges. As we described in *Gold Mining's Contribution to the UN Sustainable Development Goals*, these companies often find themselves on the frontline when it comes to responding to health crises. They offer considerable support to their employees and their families and the wider community members through the provision of modern healthcare facilities, therapeutic and diagnostic services and educational programmes. Sometimes localised, mine-supported, healthcare projects can evolve regionally or even countrywide, helping to improve the well-being of a much wider section of society. For example in Africa, many mining companies have been at the forefront of the response to public health emergencies such as HIV/AIDS, malaria, TB and Ebola.

¹ *Gold mining's contribution to the UN Sustainable Development Goals 2020.*

Gold's contribution to SDG 3



Target 3.b: Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries

Gold powering critical diagnostics

Gold has long played a critical role in the medical diagnostics sector. Until recently, pregnancy tests were probably the most widely recognised examples of lateral flow assays (LFAs) which use minute nanoparticles of gold as an “indicator” to provide a simple positive / negative test readout. These types of test are accurate, portable and cost effective, and as such have become vitally important tools used to diagnose disease in communities around the world. This includes life-threatening diseases such as malaria, HIV/AIDS and sepsis. The majority of these rely on a tiny quantity of gold for their accuracy.

The COVID-19 pandemic has thrust this type of technology into the spotlight as the need for quick and accurate tools to diagnose outbreaks of the virus became increasingly important. Early in the pandemic, more complex lab-based testing tools were developed which were highly accurate but suffered from capacity issues as ever-increasing numbers of people took tests, and result turnaround times increased to unacceptable levels. The subsequent development of reliable gold-based antigen tests has helped to supplement diagnostic capability, relieving pressure on laboratories around the world.



Malaria testing at a community clinic in Uganda.

Testing – how many gold-based tests are being produced?

At the time of writing, the Foundation for Innovative New Diagnostics (FIND) COVID-19 diagnostics database² lists over 300 separate COVID-19 antigen immunoassay tests that are either in development, or certified for use. Each of these tests are at varying stages of development or regulatory approval in countries around the world. However, many have been shown to be valuable tools in the fight against COVID-19, and we believe the majority of these 300+ tests utilise gold in their formulation. Thankfully these tests are also being made available to low and middle income Countries, with Non-Governmental Organisations

(NGOs) such as FIND currently piloting a number of tech transfer programmes to accelerate the ramp up of manufacturing capabilities worldwide.³

With almost 350 million malaria LFAs being manufactured in 2019,⁴ the importance and scale of LFA supply is clear. Multiple billions of tests will be supplied in 2021 across all diseases, and it is likely a significant proportion of the world's population will utilise a gold-based LFA during this period. The rapid development pathway for COVID-19 antigen tests is due, in part, to the reliability of gold within these tests. Indeed, the metal is at the heart of a technology which brings reliable and cost-effective medical diagnostics to communities around the world.

Teaching an old drug new tricks

In addition to its use within testing kits, gold has also been shown to be a safe and effective component in some medicines. Multiple clinical trials are currently underway, suggesting that gold's use within healthcare is set to increase.

Auranofin is a gold-based drug which was developed and marketed in the 1980s by SmithKline & French (now GSK). Originally designed to treat serious cases of rheumatoid arthritis, it was gradually superseded by more recent drug developments. However, the story did not end there and there is now significant interest in using it to treat several other conditions.

This approach of 'repurposing' previously approved drugs is becoming increasingly common and important in modern medicine. Medicines often have the ability to have a clinical impact on multiple targets, and Auranofin is a prime example of this. A review published in 2015 stated that "...there is potential for new applications in the treatment of some cancers, parasitic infections, bacterial infections, HIV and even neurodegenerative disorders such as Parkinson's disease and Alzheimer's".⁵ Indeed, there are several clinical trials which are investigating the drug's potential across many of these disease indications. In cancer, for example, Auranofin has recently been assessed in clinical trials for chronic lymphocytic leukemia, breast cancer, and lung cancer (NCT01747798,

NCT01419691, and NCT01737502, respectively).⁶

Parasitic infection is also an area of significant promise; a phase II trial is currently underway to assess Auranofin's effectiveness against amebiasis and giardiasis (NCT02736968), both dangerous infections common in the developing world.



2 www.finddx.org/test-directory/

3 www.finddx.org/newsroom/pr-22jan21/

4 www.who.int/publications/i/item/9789240015791

5 www.ncbi.nlm.nih.gov/pmc/articles/PMC4359176/

6 www.nature.com/articles/s41408-019-0259-8



Gold nanoparticles in solution. The distinct colours are a consequence of the tiny metal particles interacting with light. Depending on the size of the particles, the solutions can be blue, purple, red or green. Most LFAs use particles which give a deep red colour. (Photograph copyright World Gold Council)

Nanotechnology at the cutting edge of medicine

Nanotechnology is a branch of science which is driving considerable progress in the way we tackle some of the world's biggest challenges. The idea of targeting small quantities of highly engineered materials to solve specific problems is a holy grail of medicine in many ways, and gold is playing an increasingly important role here. Many companies have recognised the potential of gold nanoparticles (GNPs) in medicine because they are stable, easily modified and functionalised and, critically, safe to administer into humans. Several start-ups are pursuing different paths to incorporate gold nanoparticles into their treatments.

GNPs have long been recognised as an ideal vehicle to carry drugs into the enlarged blood vessels commonly found in cancerous tumours. Companies such as Cytimmune Sciences has both performed successful clinical trials using gold, and Cancer Research UK is also active in this field.

Another interesting property of GNPs is that they can be heated very rapidly using lasers of an appropriate wavelength. Researchers have been trying to harness this property in the fight against cancer; if an appropriate quantity of nanoparticles can be concentrated in a tumour, they could be heated remotely using a laser, potentially destroying the cancer without the need for either drugs or surgery. This process is known as 'thermal ablation' and is the basis for start-up company Nanospectra Biosciences's AuroLase® GNP ablation therapy which is currently being trialled in the US.

Another potentially impactful use of GNPs in medicine is in the development of novel vaccines. Companies like Emergex utilise GNPs as a carrier system for their vaccines which are targeting a significant number of diseases including Dengue, Zika and Yellow Fever. The company has completed preclinical studies on its lead Dengue programme, and Phase I and subsequent clinical trials are planned to start in Switzerland, Singapore and Brazil.

Gold Mining's contribution to SDG 3



Target 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks



Barrick Gold delivering personal protective equipment to the Health Network at Santiago de Chuco.

Tackling the COVID-19 pandemic through community support

The COVID-19 pandemic has touched all of our lives and its effects may be felt for a generation or more. The gold mining sector was quick to recognise the significance of the pandemic, and responded quickly to help ensure the health and safety of both employees and its host communities.

Newmont, for example, announced in April 2020 the establishment of a US\$20 million fund to help host communities, governments and employees confront and recover from the impacts of the COVID-19 pandemic. To maximise the Fund's impact and ensure that aid reached those who needed it most, employees at the site, region and corporate levels partnered with governments, institutions, charities and NGOs to target funding across three areas that focused on fighting the pandemic and supported rebuilding and resilience: workforce and community health; food security and local economic resilience.

Newmont also developed a global COVID-19 management plan, which was tailored to reflect the risk profile of COVID-19 and outlined measures to minimise the impact of the pandemic on their workforce, operations and host communities. Each site developed a local plan that was consistent with the global plan but adapted to the local context (e.g., regulations, logistics) and reflected stakeholder input. Rigorous controls and protective measures were applied at all of Newmont sites and offices to detect and prevent the transmission of COVID-19. The company also hosted vaccination clinics for personnel at its sites Akyem in Ghana, CC&V in Colorado, USA, Éléonore in Quebec, Canada, and Musselwhite in Ontario, Canada.

For Hummingbird Resources in Mali, COVID-19 impacted their ability to interact with local communities. However, the company provided financial contributions to the government and local communities. Over 3,000 PCR COVID-19 tests were administered and the company provided an isolation facility and increased support for local groups in the provision of face masks and soaps.



Newmont, Covid-19 Fund Penasquito.

As demand for Personal Protective Equipment grew in response to COVID-19, Yamana worked with its operation at its Jacobina mine in Brazil and small local businesses to help shift their production to the creation of face masks. These facemasks helped protect local communities and Yamana employees against COVID-19. In 2020, Yamana had over 90,000 beneficiaries from over 28 Integrar Programmes which focused on health and safety related to COVID-19. Many of these programmes provided support and equipment to protect local communities, such as PPE and food donations, testing kits, medical supplies and donation of hospital beds.

In China, our Members China Gold, Shandong Gold, Zijin Mining, and Zhaojin Group, collaborated closely with the broader gold industry to safeguard their employees and communities in the face of the pandemic. Company staff volunteered in their communities, working to distribute PPE and disinfect high-risk locations. The wider gold industry in China also made a series of donations to foundations and charitable organisations. By September 2020, over 100,000,000 yuan (US\$15.5 million) had been distributed to help fight the COVID-19 pandemic. Find out more about the Chinese gold industry's efforts [here](#).

In Canada, like many other countries, COVID-19 provided a key challenge regarding the availability of and access to critical supplies and equipment, including Personal Protective Equipment (PPE) such as medical grade gloves, masks and consumables like hand sanitiser. Partnering with community groups, Kirkland Lake Gold assisted in donating supplies to care homes, medical facilities and early childhood services. In the town of Kirkland Lake, the company granted CAD\$100,000 to the local Rotary Club for the purchase of foggers and air purifiers for all area schools and day-cares, and an in-kind donation of hand sanitiser to services and businesses such as local fire and emergency medical services, local police, grocery stores and day-cares. In addition, Kirkland Lake also looked at how they could help the homeless. Homeless shelters are a high-risk environment for transmission of COVID-19 and when the company was asked by the City of Timmins for support in providing spaces for people experiencing homelessness, to ensure physical distancing, isolation or quarantine, they provided a CAD\$556,321 grant to the Cochrane District Social Services Administration Board. This board administers 23 agencies that provide a variety of services, such as homeless shelters and food banks, emergency medical services, special needs

resourcing, family resource centres, and housing units. Moving forward, Kirkland Lake Gold has committed to USD\$75,000,000 each year for 5 years towards carbon reduction, smart mines and community well-being, with emphasis on old age security, learning and development, and homelessness. The Company also launched a USD\$12 million Australian Community Partnership Program to support post-COVID recovery services in the Bendigo area, with partnerships entered into to date including: Haven Home Safe; Bendigo Foodshare; Bendigo Tech School – Girls in STEAM; Bendigo Basketball Stadium; North Central Local Learning and Employment Network (LLEN); and Axedale Camp Getaway. In Kirkland Lake, Ontario, the Company committed USD\$4.1 million to fund multiple projects at the Kirkland Lake Hospital, including the redevelopment of the hospital's Emergency Department, as well as the procurement of significant equipment encompassing mammography, ultrasound, and point-of-care laboratory equipment.

Barrick Gold, which operates in 13 countries, all of which were differently affected by COVID-19, also put a significant emphasis on helping its host countries in tackling the pandemic. In 2020, the company provided more than \$30 million in support to its host communities, much of it in the form of medical supplies and equipment. In addition, some of its businesses have prepaid taxes to ease the pandemic's pressure on their host countries' economies.

The company also developed innovative community support funds in Nevada, USA, the Democratic Republic of Congo (DRC) and Latin America. These funds provided low-interest loans to local and small businesses to help ease the burden on host communities until the economy reopens. These initiatives have collectively provided more than \$5m in loans and support to local businesses.

To ensure the health and well-being of its employees and communities, Barrick implemented a variety of protocols including strict access, screening, sanitation and isolation measures which were implemented through the company's community engagement channels, as well as educational programmes for communities. In addition, the provision of rapid antibody testing kits to local clinics and hospitals was particularly valuable in helping host countries manage the pandemic's initial onslaught. Barrick is also partnering with host governments to assist with vaccine roll out across all regions.

How gold miners are tackling malaria, HIV and TB

3 GOOD HEALTH
AND WELL-BEING



Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases



AGAMal employee performs malaria indoor residual spraying in Obuasi.

Indicator 3.3.3: Malaria incidence per 1,000 population

As previously described, gold nanoparticles are used in malaria tests to help give accurate results. However, access to high quality diagnostics is only one part of the complex fight against this deadly disease. Malaria remains one of the leading causes of premature death in many countries around the world despite it being preventable, with women and children often hardest hit. Ghana, Africa's largest gold producer, is one such country.

The government and many businesses operating in the country are working together to fight back against the disease. It is estimated that companies located in Ghana spend 0.5% of their corporate returns on malaria treatment for their workforce and their families. Gold mining companies are at the heart of this effort, with many World Gold Council Members actively involved in tackling malaria. One of the most widely known examples is the pioneering Obuasi model of malaria control, which began life at AngloGold Ashanti's Obuasi mine in 2006. The programme achieved a 75% reduction in reported malaria cases by December 2009, and the project was extended beyond AngloGold Ashanti's operating environment, supported by a \$133m grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The programme continues, in 2021 under the stewardship of Anglogold Ashanti Malaria Control Limited (AGAMal) which is a Ghanaian NGO. Working in step with the Ghana Health Service and the National Malaria Control Programme (NMCP), the programme is widely recognised as a highly successful and impactful public-private partnership, with an overarching target of reaching zero malaria in Ghana.

Kinross and Golden Star Resources have also made investments in wide-ranging malaria prevention programmes in Ghana. Since 2008, Kinross has implemented an integrated vector control programme at its Chirano mine and in nearby communities. Since 2008 the Chirano malaria control programme has led to a 90% reduction of overall malaria incidence rates among employees, dependants and on-site contractors. To date, Chirano has invested over \$9 million in malaria control.

At Golden Star's mine in Wassa, the extensive vector control program is complemented by widespread workforce and host community education and training initiatives to promote broader local awareness on malaria prevention and treatment. In addition, the company works with local and international health partners – such as the Ghana Health Services and Gesellschaft für Internationale Zusammenarbeit (GIZ) – to provide ongoing malaria

program support. In 2019, for example, under such a partnership, the company issued 5,000 long-lasting insecticide treated bed nets to its workforce and host communities. Since the malaria prevention programme's inception, Golden Star has realised significant reductions in malaria cases, case rates and lost productivity. In 2018 the company set a public goal of sustaining malaria incidence rates under 6% of clinic attendance and under 0.6 cases per capita. In the two years since then the company has consistently achieved its goals and has driven the malaria incidence rate down to under 0.25 per capita – a feat the company is on track to achieve again in 2021.

Of course, Ghana is just one of many countries across the world where malaria is endemic. Barrick's anti-malaria programme operates at mines across Tanzania, Mali, Democratic Republic of Congo, Zambia and Cote D'Ivoire, and includes distributing insecticide impregnated mosquito nets, use of insecticides on site and within a 10km radius of each of the mines, indoor spraying of insecticides on site and within surrounding communities, providing insect repellent to night shift workers and prophylactic medication during the high transmission season. Education for workers and emphasis on behaviour change to avoid mosquito bites and minimise breeding sites. In total, \$900,000 was spent on antimalaria initiatives in 2020. The company monitor the success of its programme by tracking the malaria incidence rate and have a target to reduce malaria incidence by 5% year on year. Barrick is actively tracking the development of malaria vaccines to augment its malaria programme and eliminate malaria from operations.

2020 saw Endeavour Mining accelerate their efforts to tackle malaria across their operations, with a 10% reduction target in group-wide cases. A malaria control programme was implemented across all sites along with an awareness campaign, called 'Jour sans Malaria', to alert workers to the importance of various protocols and actions to combat malaria under the slogan of "having malaria is not normal". Alongside these initiatives, at its Houde mine in Burkina Faso the HSE team decided to investigate every malaria case and interview the people affected. These efforts particularly paid off where cases decreased by 80% from 2018 to 2020. While the Group recorded 3,188 cases of malaria in 2020, this was a 38% decrease compared to 2019 with the group-level malaria incidence rate decreasing by 36% from 216.2 to 138.7. To maintain this downwards trend, for 2021 Endeavour has included a further 10% reduction in malaria cases as part of the group-wide annual target that forms part of the remuneration package for employees and executives.

Indicator 3.3.1: Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations

Indicator 3.3.2: Tuberculosis incidence per 1,000 population

Tuberculosis (TB) and HIV/AIDS are both devastating diseases, and unfortunately are intimately linked because people with weakened immune systems have a much greater risk of contracting TB. Indeed, a person living with HIV is about 20 times more likely to develop active TB. The target of ending these epidemics is central to SDG 3 target 3.3.

Since embarking on the objective to eradicate TB at all South Africa operations, Sibanye Stillwater has successfully reduced the number of active cases from 832 in 2014 to 237 in 2020. This equates to a rate of 6.64 per every thousand employees at their South Africa gold operations. This can be attributed to improved testing and access to primary health care at shaft clinics with a portion attributed to the unusual events of 2020.

The significant impact of COVID-19 pandemic increased the company's collaboration with the Department of Health in South Africa and local communities. This is controlling the spread of TB across all operations and doorstep communities in addition to COVID-19 actions. It is Sibanye-Stillwater's intention to capitalise on the progress made and enhance efforts to eliminate TB from operations. This will be done through standard initiatives of annual compulsory TB screening for all employees at all occupational health centres, and compulsory case management of suspected and confirmed TB cases with follow through to completion of the treatment. This is just one of the programmes that places the health and well-being of employees as a priority across their business. The health and wellness approach is underpinned and guided by the commitment, accountability, respect, enabling, and safety (CARES) values of the company, and is designed to address and mitigate occupational health risks that employees and contractors confront in their internal and external environments. The support the company offers is delivered through six 'pillars' one of which is dedicated direct healthcare provision with doctors and nurses managing cases 24/7 at primary health care centres and shaft clinics within a walking distance from the workplace. In addition, primary health care staff provide health risk assessments and disease treatment for communicable



diseases – including TB, but also HIV and other chronic ailments (diabetes and heart disease etc).

HIV prevalence in West Africa remains comparatively low compared to other countries in sub-Saharan Africa, with adult prevalence in the general population assessed to be around 2%. Effective anti-retroviral drugs can control the virus and help prevent transmission so that people with HIV can enjoy healthy, long and productive lives with minimal side effects. To reduce the spread of HIV/AIDS amongst workers and in host communities, Endeavour Mining conducts awareness-raising and education programmes amongst employees. To inform the community about the risks of HIV and the precautions that should be taken to reduce the risk of transmission, the Company distributes free condoms and provides voluntary counselling and testing (VCT).

In addition, Barrick has developed a programme aligned to the UNAIDS Fast-Track Strategy, which aims to reduce new HIV infections and AIDS related deaths by 90% by 2030, compared to a 2010 baseline. The strategy is underpinned by ensuring that 90% of employees are aware of their HIV status, 90% of those positive are under HIV treatment, and 90% of those under treatment have viral suppression.

Helping babies breathe

3 GOOD HEALTH
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Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under 5 mortality to at least as low as 25 per 1,000 live births



Golden Star Resources' Help Babies Breathe programme in Ghana.

Indicator 3.2.2: Neonatal mortality rate

It's not only drugs that can save lives, often in the developing world the lack of education contributes to high mortality rates which can be reduced through educational programmes.

According to the World Health Organisation (WHO), in 2019 an estimated 5.2 million children under 5 years died mostly from preventable and treatable causes. Newborns (under 28 days) accounted for 2.4 million deaths.

Across Ghana, the lack of access to qualified medical aid and absence of skilled midwives during child birth, particularly in rural areas, have resulted in high rates of maternal and neonatal mortality. To help tackle this issue, Golden Star Resources started the Helping Babies Breathe (HBB) initiative in collaboration with Project C.U.R.E. which brings neonatal resuscitation capability and capacity to communities where it is most needed. This was conducted in 2015 and 2018.



Golden Star Resources Helping Babies Breathe Programme in Ghana.

The HBB training program focusses on teaching local nurses, midwives, and birth assistants how to save a distressed new-born's life in the first critical minute after birth. HBB adopts the 'train-the-trainer' model, where through the partnership with the Ghana Health Services, personnel are trained to provide ongoing training to other personnel within the host communities. Participants are equipped with resuscitation and suction kits as well as resource kits for future training exercises.

The 2015 phase 1 programme taught local nurses, midwives, and birth assistants how to save a newborn's life in the first critical minute after birth. District Public Health Officials in the Districts involved in the program confirmed that shortly after the training in early 2015, the neonatal death rate in the District decreased from 1.1% in 2014 to 0.06% per 100 live births in 2015 with no neonatal deaths in 2016 or 2017 and 2015 levels maintained in 2018.

In 2018, phase two of the programme, 72 midwives, community health nurses and birthing assistants from two additional Districts, the Prestea Huni-Valley Municipality and the Wassa Amenfi East District were trained.

In the period from 2015 to 2018, health care professionals in the district representing 100% of the healthcare professionals in the District involved in midwifery – a district with a nurse to patient ratio of 1:575 were trained.

Over the duration of this initiative, which concluded in 2020, a total of 500 health professionals, within Prestea Huni-Valley and Wassa Amenfi East municipalities, were trained. This resulted in the Prestea Huni-Valley Municipality health directorate recording a decrease of about 25% in neonatal mortality in just the 2nd and 3rd quarter of 2018, following the HBB training.

As health professionals in Ghana are rotated to new districts every three years, the company is now in consultation with local officials in planning for further training to assure the programme sustainability.

Recognising and improving mental health



Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

The inclusion of mental health in the SDGs in 2015 was a historic step which recognises the considerable burden of this complex and often forgotten illness, and helps to define mental health as a priority for global development for the next 15 years. According to WHO, one in four people in the world will be affected by mental or neurological disorders at some point in their lives, and mental health disorders are among the leading causes of ill-health and disability worldwide.

The COVID-19 pandemic has, unfortunately, deepened the many challenges related to good mental health. There have been a range of psychological impacts experienced by many including elevated rates of stress and anxiety, surging levels of loneliness, depression, harmful alcohol and drug use, and self-harm or suicidal behaviour.

The gold mining industry is aware of the importance of ensuring their workforce is supported and the role they can play to support wider mental health initiatives.

For instance, IAMGOLD, in partnership with the University of Toronto's Department of Psychiatry, created the Miner's Lamp Campaign in 2016 to raise funds for mental health issues, while recognising those who have shown outstanding leadership in eroding the stigma of mental illness. The Campaign has raised over CAD\$2.75 million over four years for ground-breaking research that is helping to define the future of mental health care.

To help Kinross's leaders learn about mental health, the company has held five workshops on mental health in the workplace for management from many of the offices, with more than 80 participants to date. Managers are learning about the links between mental health issues, stigma, behaviour and performance, and are developing the tools they need to manage and build a more resilient and productive workforce. They are putting this into action at their operations around the world; for example in Russia, their fly-in/fly-out Kupol and Dvoinoye operations which are located in remote and harsh locations, and present unique challenges for all employees, especially those who need professional mental health support. Visits to the

sites by psychologists provide employees with personal counselling and team consultations. The psychologists also work with supervisors to help them develop the skills they need to deal with conflict and/or difficult situations. Remaining on site for a minimum of two weeks, the psychologist helps ensure that mental health expertise is available to each rotation of employees. First introduced at Dvoinoye, this practice was extended to Kupol employees in 2020 and is currently available by video while COVID-19 travel restrictions are in place.

Newcrest have also conducted a series of mental health first aid training courses to enable personnel to respond to both physical and psychosocial health issues at their offices in Melbourne. The company also teamed up with a psychologist, Dr Erin Kelly, to create video messages on different topics such as dealing with uncertainty to ensure their employees are supported.

To alleviate some of the psychosocial impacts of the COVID-19 pandemic on the well-being of employees, Sibanye-Stillwater expanded access to mental health services in June 2020 in their South African operations. This service includes promotion of wellbeing and lifestyle changes, management support, counselling, and psychological and trauma issues. The access points include telephonic and face-to-face discussions both off-site and on-site, based on employee preference. Specific resilience training was offered daily to health care workers facing the infectious pandemic. Sibanye-Stillwater has wellness teams, social workers, the ICAS employee assistance programme, and network providers to support employees, including those with substance abuse disorders.

The WHO states that increased investment is required on all fronts: for mental health awareness, to increase understanding and reduce stigma; for efforts to increase access to quality mental health care and effective treatments; and for research to identify new treatments and improve existing treatments for all mental disorders. Gold miners are committed to do their part in supporting these goals.

Conclusions

A recent report published by the UN laid out, in stark terms, the impact COVID-19 is having on progress towards meeting the SDGs.⁷ Progress towards meeting Goal 3 has been hit particularly hard by set-backs, with recent advances across a number of the targets being eroded as the pandemic has taken hold. This includes the reversal of multiple years of progress in reducing maternal and child deaths, the interruption of childhood immunisation efforts globally and the potential for COVID-related disruptions to cause spikes in death and illness from communicable diseases such as HIV/AIDS, malaria and TB. In addition to these concerns, of course, have been added the differences in access to COVID-19 vaccines between the developed world and developing countries

These distressing reports make the efforts of the gold mining sector even more important in some of the world's most remote communities. Gold miners are often among the largest employers and tax payers in their host countries, and therefore their support during times of crises are significant and invaluable. Company-backed programmes or partnerships for malaria prevention, food security and improved infant health all bring considerable benefits into local mining communities and increase their resilience. And, of course, the precious material they mine is also at the forefront of the fight in the diagnostic tools and cutting edge technologies that will help to improve lives around the world in the future.



Newmont, COVID-19 Ahafo Donation.

⁷ <https://unstats.un.org/sdgs/report/2020/>

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