Health Services Management Standard

OTML-OHS-STD-2.312

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1 Purpose

The purpose of this standard is to define the health and wellbeing requirements and describe how Ok Tedi Mining Limited (OTML) will systematically manage workplace health risks. The goal is to ensure that no negative impacts occur on the health of workers (including employees and contractors), or visitors and the surrounding community potentially affected by exposures across business operations, from pit to port.

2 Scope

This standard establishes a framework for health service standards focused on monitoring and evaluating health-related changes within the scope of performance management and sustainable development. It applies to all health service activities related to work conducted on behalf of OTML, encompassing those carried out by employees, contractors, sub-contractors, and visitors.

3 Accountabilities

Team	Roles & Accountabilities
Managing Director/CEO	*Managing Director* • Ensure that a health services risk management processes are developed and applied to all OTMLs work locations.
Executive Leadership Team (ELT)	*General Managers* • Provide visibility to Organization on what good governance looks like • Ensure Managers demonstrate compliance with the processes and actions defined in this standard.
Frontline Leadership Team	*Managers* • Identify and risk assess potential and actual health hazards in their areas of responsibility. • Ensure that all employees and contractors are aware of the tools and techniques designed to help them become aware of health hazards that can occur in their work or the surrounding environment through the provision and support of appropriate training and information. • Monitor and report on the effectiveness of actions that have been introduced to manage/control hazards or lower risk. • Investigate all incidents to determine whether unidentified health hazards exist.

Team	Roles & Accountabilities
Health Services Team	*Manager Health Services* • Develop and implement strategic plans, goals, and performance metrics to drive organizational growth, innovation, and excellence in healthcare services. • Provide visionary leadership and strategic direction for the health services standards, aligning operational objectives with the organization's mission, vision, and values. • Oversee the development and implementation of clinical governance frameworks, policies, and procedures to ensure the delivery of high-quality, evidence-based care that meets regulatory standards and best practices. • Collaborate with executive leadership, clinical departments, and other stakeholders to align medical services with organizational goals, priorities, and strategic initiatives. • Ensure compliance with healthcare regulations, accreditation standards, and professional guidelines governing medical practice, patient care, and clinical operations. • Monitor an effective audit system to ensure compliance with this standard. *Superintendent – Health Services* • Oversees operational admin function, systems and standards, public and mental health and fitness programs. Superintendent – Occupational Medical • Oversees employee health and wellness clinics in Tabubil, Fubilan, Kiunga and Bige operations. *Chief Medical Officer* • Provide strategic leadership and direction for medical services, quality improvement initiatives, and patient safety efforts across healthcare. • Ensure the effective functioning of the health services team and delivery of health risk management programs. • Ensure that the best methods of health risk management are identified and applied. • Lead quality improvement initiatives to enhance clinical outcomes, patient satisfaction, and operational efficiency, utilizing data-driven approaches, performance metrics, and benchmarking analyses. • Identify and mitigate clinical risks, adverse events, and patient safety concerns through proactive risk assessment, incident reporting, and implementation of preventive measures. • Foster a culture of continuous learning and professional development among medical staff, promoting opportunities for education, training, and career advancement. *Medical Officer* • Oversee day-to-day operations, including staffing, budgeting, resource allocation, and performance management, to ensure efficient and effective service delivery. • Possess a comprehensive understanding of medical principles, theories, and practices relevant to specialty or field of practice. • Collaborate with other healthcare professionals, delegate tasks effectively, and demonstrate leadership in multidisciplinary care teams to optimize patient outcomes.

Team	Roles & Accountabilities
	• Demonstrate proficiency in conducting medical assessments, diagnosing illnesses, and formulating treatment plans for patients. • Effectively communicate with patients, families, and interdisciplinary healthcare teams to convey medical information, discuss treatment options, and address concerns. • Apply analytical and problem-solving skills to evaluate complex medical cases, interpret diagnostic tests, and make evidence-based clinical decisions. • Uphold ethical standards, maintain patient confidentiality, demonstrate empathy, and compassion, and adhere to professional codes of conduct. *Health Extension Officer (HEO)* • Champion a culture of quality and client/patient safety, implementing quality improvement initiatives, patient safety protocols, and risk management strategies to optimize clinical outcomes and enhance patient experience. • Ensure compliance with healthcare regulations, accreditation standards, and industry guidelines governing healthcare delivery, privacy, security, and ethical conduct. • Collaborate with interdisciplinary team members, such as physicians to develop and implement comprehensive care plans. • Providing client and patient education on disease management, medications, and treatment plans. • Provide support with Return to Work (RTW) medical assessments and RTW plans. *Nursing Officer* • Demonstrate proficiency in nursing assessments, medication administration, wound care, patient monitoring, and other clinical procedures. • Utilize the nursing process (assessment, diagnosis, planning, implementation, and evaluation) to develop and implement individualized care plans for patients across the lifespan. • Apply critical thinking and clinical judgment to assess patient needs, identify changes in condition, and prioritize nursing interventions in a dynamic healthcare environment. • Accurately document patient assessments, interventions, and responses to treatment in medical records. • Communicate effectively with patients and healthcare team members to facilitate patient-centred care, provide health education, and ensure continuity of care. • Demonstrate integrity and ethical conduct in nursing practice. *Community Health Worker (CHW)* • Provide support to the HEOs with premedical screening and basic vitals. • Respect cultural diversity, acknowledge the influence of culture on health beliefs and practices, and provide culturally sensitive and competent care to meet the unique needs of diverse patient populations. • Advocate for patients' rights, preferences, and safety, and collaborate with interdisciplinary teams to address patient concerns and promote optimal health outcomes. *Mental Health Clinician* • Adhere to ethical and legal standards of practice, including patient confidentiality and informed consent.

Team	Roles & Accountabilities
	• Maintain awareness of community resources and healthcare facilities to facilitate appropriate patient referrals and follow-up care. • Provide psychiatric care and support to the hospital, clinics and community. • Participate in ongoing training and education to maintain proficiency in emergency medical procedures and protocols. Fitness Officers • Conduct Position Profile Assessments for Employees as part of the EHW medical assessment. • Provide support to employees and business partners with fitness programs. *Environmental Health Officer* • Support the business in areas associate with food safety, building and accommodation assurance. • Provide and support health promotion and public health programs. *Vector Control Officers* • Regularly inspect designated areas for the presence of vectors, such as mosquitoes, rodents, or other pests, and documenting findings. • Properly identify different types of vectors and assessing their potential threat to public health. • Conduct risk assessments to evaluate the likelihood of vector-borne disease transmission and implementing appropriate control measures. • Implement effective vector control measures, such as larviciding, adulticiding, trapping, or habitat modification, according to established protocols and guidelines. • Collect and maintaining accurate records of vector surveillance activities, control measures applied, and any relevant data for reporting purposes. • Properly maintaining and calibrating equipment used for vector surveillance and control activities to ensure accurate results and safe operation. *Health Services Contractors* • Provide support to the OTML health services team in the capacity outlined in your contracted role, whether administrative or medical. • Provide direct patient care including assessments, medication administration, wound care, and monitoring vital signs.
Asset Protection Department (APD)	*Emergency Response Team (ERT)* • Act as first responders and coordinate emergency responses. • Provide emergency medical care and transportation to patients in accordance with established protocols and procedures. • Conduct drug and alcohol testing. *Paramedic* • Safely operate and maintain medical equipment and vehicles, ensuring readiness for emergency response. • Document patient assessment findings, medical interventions, and transport details accurately and promptly. • Collaborate with other emergency responders to coordinate patient care and scene management.

Team	Roles & Accountabilities
HR Team	*Employee Assistance Program (EAP) Counsellors* • Provide short-term counselling and support for personal and work-related issues. • EAP Services provide employees with confidential, flexible and convenient access to mental health professionals. *Camps and Catering Team* • Provide guidance on food and camp accommodation requirements. • Engage with EAP and provide oversight of OTML people management programs and initiatives.
Culture and Engagement	Culture and Engagement Manager and Superintendent • Provide leadership and advocacy for a positive and supportive workplace that promotes employee wellbeing. • Develop, implement, and provide oversight of an organizational wellbeing strategy and action plan that positively contributes to the OK Tedi 5-year strategy for transformation and sustainability • Create and maintain a culture of wellbeing by supporting leaders to integrate One Team, Wan Pasin and wellbeing into everyday practices. • Supporting individuals by providing professional employee assistance services including counselling and support for personal and work-related issues
Safety Team	*Occupational Hygienists* • Use scientific knowledge, skills, and experience to champion the protection of workers from the hazardous environmental exposures. *Safety Officer* • Respond to incidents and conduct investigations. • Provide support with Return to Work (RTW) cases. • Input health and safety information into INX. *Safety Systems Team* • Communicate information associated with Lost Time Injuries (LTIs) and Medical Treatment Injuries (MTI).
Training and Development	*Training officers* • Collects and analyses feedback from health services employees to improve training skill set. • Provides feedback on how training impacts clinical practice and patient outcomes.
Community Relation and Sustainability	*CR&S Manager* • Medical Evacuation process Management • Donation committee Health related process
Finance Team	• Provide guidance and oversight on medical insurances.
All Staff & Contractors	• Follow all OTML health and wellness requirements, including appropriate and timely communication.

4 Standard

This standard is a set of principles for the provision of health services to people across OTML workplaces, clinics, and the OTML hospital. It encompasses a range of guidelines aimed at safeguarding the workers and the community's health and well-being.

The health standards include:

4.1 Health Risk Management
- 4.1.1 Operational Activities
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4.7 Injury & Medical Emergency Response

- 4.7.1 Injury & Illness Management
- 4.7.2 Emergency Preparedness and Response
- 4.7.3 Medevac Processes – OTML, Business Partner and Community
- 4.7.4 Medical Repatriation
- 4.7.5 Rehabilitation & Return to Work (RTW)
- 4.7.6 After Incident Response
- 4.7.7 Medical Investigations

Compliance with these standards is essential for maintaining the health, safety, and well-being of employees, contractors, patients, and visitors in an OTML workplace, clinic, and hospital.

4.1 Health Risk Management

At OTML, we prioritise the well-being of our workforce and regularly review our Health Impact and Health Risk Assessment to ensure the highest standards of health and safety. To maintain a safe and healthy working environment for all employees, contractors, and visitors, we adhere to rigorous health risk management practices. Our approach is guided by the principle of keeping risks As Low As Reasonably Practicable (ALARP), addressing both physical and mental hazards that could lead to illness or injury. These assessments consider OTML's operational activities, identifying necessary actions to mitigate health risks and promote health opportunities.

In defining the Health Impact and Health Risk Assessment (HIA/HRA) for Ok Tedi Mining Limited (OTML), we consider several crucial factors to ensure a thorough and context-specific evaluation. These factors include:

- Operational Footprint: Identifying and assessing the scope of work conducted by and on behalf of OTML in Papua New Guinea (PNG).
- Occupational Hazards: Evaluating the various occupational hazards present in our operations.
- Workforce Demographics and Health: Understanding the demographics, health status, and vulnerabilities of our workforce.
- Community Impact: Assessing potential health impacts on nearby communities.
- Health Outcomes: Examining the range of health outcomes associated with exposure to identified hazards, both acute and chronic.
- Exposure Evaluation: Determining the extent and frequency of exposure to these hazards.
- Risk Communication: Implementing effective strategies to communicate risks.

- Regulatory Compliance: Ensuring compliance with relevant regulations and standards.
- Health Monitoring Programs: Establishing and maintaining health monitoring programs.

By comprehensively addressing these factors, OTML can safeguard the health and well-being of its workforce, communities, and environment, while promoting responsible mining practices.

4.1.1Operational Activities

With a diverse operational risk profile that encompasses activities from pit to port, Ok Tedi's operations include a large-scale open-cut mine, a concentrator with grinding and flotation circuits, a Tailings Pyrite Plant (TPP), pipelines for transporting pyrite and copper-gold concentrates, a filtration plant, and barge loading facilities at Kiunga port. Additionally, there are hydro-electric power plants, a thermal power generation facility, riverine transportation of tailings and waste rock, and dredging in the Ok Tedi River. These comprehensive operations involve extracting minerals from the Ok Tedi Mine in Papua New Guinea (PNG) and transporting them to Kiunga port for export, along with waste treatment and landfill works.

The operational processes encompass key stages, including:

- **Mining:** Extraction of copper, gold, and silver ore from the Ok Tedi Mine using large-scale open-cut methods.
- **Processing**: The ore is transported to a concentrator where it undergoes grinding and milling processes to produce a copper-gold concentrate. Tailings, a by-product of the processing, are separated at the Tailings Pyrite Plant (TPP) and transported via pipeline for disposal.
- **Transportation:** The copper-gold concentrate is transported via pipeline to the port of Kiunga, where it is stored in a concentrate stockpile and loaded onto barges for export.
- **Shipping:** Ok Tedi manages shipping logistics for transporting the mined materials to various destinations worldwide.
- **Dredging**: In addition to traditional mining methods, Ok Tedi employs dredging techniques for ore extraction from the mine. Dredging involves the use of specialized equipment to remove sediment and ore from underwater deposits, allowing for efficient extraction of valuable minerals.
- **Power generation:** Hydroelectric power plants at Ok Menga and Yuk Creek supply the majority of power for mining and processing operations, supplemented by a thermal power generation facility in Tabubil.
- **Pump Stations:** Kilometre 59. For pumping concentrate down to Bige/Kiunga.
- **Aviation:** Part of logistics. Aviation team provide logistic/aviation support by transporting OTML employees and Business Partners to and from Tabubil and other operational sites.

- **Geology and Exploration:** activities focussed on the growth of the mineral resource base and subsequent ore reserve. This is achieved through our diamond drilling campaigns both within the pit and on our exploration sites. Our team is based in Geneva Ridge where we coordinate all our exploration activities.
- **Administration:** support the smooth running of the business operation and projects by providing administrative support – along all operational sites.. Office support regarding documents, responding to business enquiries, drawing up contracts and providing customer service.
- **Environment:** Monitor and ensure compliance regarding Riverine Management, Industrial Sites & Water Management and Technical Services are all compliant against the Ok Tedi Management Act. Responsible for monitoring mine impacts in the Ok Tedi/Fly River over 900km distance as well as all industrial and transhipping sites in which OTML operates.

4.1.2 Health Hazards & Risks

The health risks associated with OTML's pit-to-port operational activities across the business include potential exposures to the following health hazards and risks:

Hazards	Details
Biological	• Risk of vector-borne diseases transmitted by insects, such as malaria or dengue fever, particularly in tropical environments. • Potential exposure to viruses, bacteria, fungi, or other microorganisms in water sources or soil. • Exposure to needle-stick injury.
Chemical	• Exposure to hazardous chemicals and substances used in mining processes, such as explosives, solvents, and lubricants. • Risk of exposure to airborne contaminants, such as dust, silica, diesel particulate matter, and chemical fumes. • Potential exposure to toxic metals and minerals present in the ore or released during processing, such as lead, arsenic, mercury, and cyanide.
Community health impacts	• Nearby communities may experience health risks related to water contamination, air pollution, and disruptions to traditional livelihoods due to mining activities. These impacts can include increased rates of waterborne diseases, respiratory illnesses, and socioeconomic challenges.
Ergonomic	• Risk of ergonomic injuries due to poorly designed workstations, tools, or equipment. • Repetitive strain injuries from performing repetitive tasks without adequate rest or ergonomic support.
Environmental	• Disposal of tailings and other waste materials may lead to water and soil contamination, impacting local ecosystems and communities downstream. Additionally, emissions from power generation facilities may contribute to air pollution and respiratory health issues.

Hazards	Details
	• Potential exposure to hazards during the disposal of waste in landfills may directly or indirectly impact worker health and well-being. • Working in hot and humid conditions, especially in underground mines, can lead to heat-related illnesses such as heat exhaustion and heat stroke. • Mining equipment and machinery produce high levels of noise, which can cause hearing loss and other auditory disorders if proper hearing protection is not worn.
Infectious Disease Risks	• Risk of infectious diseases spread through close contact with other workers, particularly in crowded living quarters or during transportation to and from remote mining sites. • Exposure to contaminated water sources, and inadequate sanitation facilities in mining camps can increase the risk of infectious diseases such as tuberculosis, hepatitis, and respiratory infections.
Physical	• Fatigue risks and impacts associated with shift work. • Lifestyle choices which increase the risk of chronic diseases such as cardiovascular disease, stroke, and diabetes, due to factors such as high blood pressure, high cholesterol, and sedentary behaviour. • Increased risk of heat-related illnesses, impaired cognitive function, and organ damage due to dehydration from inadequate fluid intake, excessive sweating due to physical activity or hot weather, vomiting, diarrhea, excessive urination (such as from certain medications or medical conditions like diabetes), and certain medical conditions like fever or burns that increase fluid loss. • Risk of slips, trips, and falls due to uneven terrain, machinery, or wet surfaces. • Musculoskeletal injuries from heavy lifting, repetitive tasks, or awkward postures can lead to musculoskeletal injuries such as strains, sprains, and back injuries. This includes less than adequate patient handling to prevent musculoskeletal injuries among healthcare workers when lifting, transferring, and mobilizing patients safely. • Traumatic injuries from moving machinery or equipment. • Exposure to noise, leading to hearing loss. • Exposure to extreme temperatures, heat stress, or cold stress. • Exposure to occupational violence and aggression.
Psychosocial	• Stress-related health issues due to the demanding nature of mining work, including long hours, shift work, and isolation from family and social support networks. • Mental health concerns such as anxiety, depression, or post-traumatic stress disorder (PTSD) related to the high-pressure work environment or exposure to traumatic events.
Respiratory	• Risk of respiratory illnesses due to exposure to airborne pollutants, dust, or toxic gases generated during mining and processing activities. • Occupational lung diseases such as silicosis, pneumoconiosis, or chronic obstructive pulmonary disease (COPD) from prolonged exposure to respirable dust or silica particles.

Hazards	Details
Radiation	• Potential exposure to naturally occurring radioactive materials present in the ore or associated with mining processes.
Vibration exposure	• Prolonged exposure to vibrating equipment, such as drills and heavy machinery, can lead to vibration-induced white finger (hand-arm vibration syndrome) and other health issues

Addressing these health risks involves conducting thorough risk assessments, implementing suitable mitigation measures, continuously monitoring environmental and occupational health indicators, and engaging with local communities to address their health concerns. This ensures that sustainable development progresses alongside mining operations.

4.1.3Health Controls

The health controls, aligned with various legislation, codes of practice, recognised standards, and guidance notes, to manage health hazards and risks associated with the OTML risk profile include:

Hazards	Health Controls
Biological	• Implement vector control measures to reduce the risk of vector-borne diseases transmitted by insects, such as malaria or dengue fever, particularly in tropical environments. • Provide training and personal protective equipment (PPE) to mitigate potential exposure to bacteria, fungi, or other microorganisms in water sources or soil. • Sharp Management which includes the safe handling of needles and bio-hazard waste management.
Chemical	• Implement stringent control measures for handling hazardous chemicals and substances used in mining processes, such as explosives, solvents, and lubricants. • Provide respiratory protection and ventilation systems to minimize exposure to airborne contaminants, such as dust, silica, diesel particulate matter, and chemical fumes. • Conduct regular monitoring and testing of air and water quality to detect and mitigate exposure to toxic metals and minerals present in the ore or released during processing, such as lead, arsenic, mercury, and cyanide.
Community health impacts	• Engage with local communities to assess and address health risks related to water contamination, air pollution, and disruptions to traditional livelihoods due to mining activities. • Implement measures to mitigate community health impacts, such as improving access to clean water, providing healthcare services, and supporting sustainable development initiatives.

Hazards	Health Controls
Ergonomic	• Conduct ergonomic assessments and implement ergonomic controls to minimize the risk of ergonomic injuries due to poorly designed workstations, tools, or equipment. • Provide training on proper lifting techniques, ergonomic practices, and the importance of taking breaks to prevent repetitive strain injuries and musculoskeletal disorders.
Environmental	• Implement waste management strategies to minimize environmental impacts, such as water and soil contamination, associated with mining activities. • Provide training on heat stress prevention and ensure access to adequate hydration and cooling facilities to prevent heat-related illnesses in hot and humid conditions. • Provide monitoring of water to ensure it is safe as is reasonably practicable to flora and fauna.
Infectious Disease Risks	• Implement infection control measures, including hygiene protocols, sanitation facilities, and vaccination programs, to reduce the risk of infectious diseases spread among workers in mining camps. • Provide medical screening and treatment for infectious diseases, such as tuberculosis, hepatitis, and respiratory infections, to prevent outbreaks and protect worker health.
Physical	• Implement fatigue management programs, ergonomic controls, and work scheduling practices to minimize the risk of fatigue-related incidents and injuries associated with shift work. • Provide training on hazard awareness, safe work practices, and emergency procedures to prevent slips, trips, falls, and traumatic injuries in the mining environment.
Psychosocial	• Offer employee assistance programs (EAPs), counselling services, and mental health support resources to address stress-related health issues and mental health concerns among mining workers. • Foster a supportive work culture, promote work-life balance, and provide opportunities for social interaction and community engagement to mitigate psychosocial risks associated with mining work.
Respiratory	• Provide respiratory protection equipment, such as respirators and dust masks, to workers exposed to airborne pollutants, dust, or toxic gases generated during mining and processing activities. • Conduct regular monitoring of air quality and implement ventilation systems to minimize exposure to respirable dust and silica particles, reducing the risk of respiratory illnesses and occupational lung diseases.
Radiation	• Implement radiation safety protocols and monitoring programs to minimize potential exposure to naturally occurring radioactive materials present in the ore or associated with mining processes.
Vibration exposure	• Conduct vibration assessments and implement engineering controls, such as vibration isolation and damping measures, to minimize prolonged exposure to vibrating equipment and prevent vibration-induced health issues, such as hand-arm vibration syndrome.

To mitigate and manage the exposures to health hazards, numerous health control and measures are required. Some of these include, but are not limited to:

Health surveillance and monitoring:

- Regular health screenings, including respiratory function tests, audiometric testing, and physical examinations, to monitor workers' health and detect early signs of occupational diseases.
- Monitoring of environmental conditions, such as air quality, noise levels, and temperature, to assess the effectiveness of control measures and identify areas for improvement.

Behavioural controls:

- Encouraging workers to report health and safety concerns promptly.
- Promoting a culture of safety through training, communication, and leadership.
- Providing resources and support for workers to adopt healthy lifestyles and manage stress effectively.

Engineering controls:

- Dust suppression systems and ventilation systems to reduce airborne dust and respirable particles.
- Enclosure and isolation of noisy equipment to minimize noise exposure.
- Ergonomic design of workstations and equipment to reduce the risk of musculoskeletal injuries.
- Installation of vibration-damping materials and ergonomic handles on vibrating equipment to reduce vibration exposure.

Personal protective equipment (PPE):

- Respiratory protection, such as dust masks or respirators, to protect against airborne contaminants.
- Hearing protection, such as earplugs or earmuffs, to reduce noise exposure.
- Protective clothing and gloves to minimize skin contact with hazardous chemicals and materials.
- Eye and face protection, such as safety goggles or face shields, to prevent eye injuries from dust, chemicals, and flying debris.
- Heat stress management equipment, such as cooling vests or hydration packs, to prevent heat-related illnesses.

Administrative controls:

- Implementing work schedules that minimize exposure to heat stress, such as providing rest breaks and rotating workers out of hot environments.

- Implementing job rotation and task variation to reduce the risk of repetitive strain injuries.
- Providing training on hazard recognition, proper use of personal protective equipment (PPE), and safe work practices.
- Establishing procedures for handling hazardous chemicals, including proper storage, use, and disposal.

By implementing a combination of these health controls and others, OTML can effectively mitigate and manage the exposures to health hazards, protecting the health and well-being of workers. It's important for OTML to conduct regular health risk assessments, implement appropriate control measures, provide comprehensive health and wellbeing training for employees, and comply with relevant regulatory requirements to mitigate health risks effectively. The way in which this will be done is through the execution of this health services standard.

4.2 Occupational Health & Wellbeing Standards

4.2.1 Pre-employment medical / health status requirements for employment

Employee & Contractor Health & Wellbeing Requirements

At OTML, the safety and well-being of our workforce are our highest priorities. Before starting employment with OTML, all potential employees and contractors must complete a thorough pre-employment medical examination. This examination evaluates their fitness for work and identifies any pre-existing health conditions that might impact their ability to perform their duties safely. By following these guidelines and preparing appropriately, candidates help create a safer and more efficient workplace. At OTML, we are committed to upholding the health and safety of our workforce through a strong recruitment process that meets industry standards.

Pre-employment Functional Assessments

Our pre-employment medical and employment requirements are designed to ensure candidates meet job standards through thorough assessments conducted by accredited health professionals. These evaluations cover medical and functional aspects, including overall wellbeing, physical capabilities, and health history, such as range of motion, strength, vision, hearing, and cardiovascular fitness. While these evaluations are crucial to our recruitment process, the final decisions rest with the company, though recommendations from healthcare professionals may be considered.

Effectively executed, pre-employment medicals streamline recruitment, boost productivity, and lower workplace injury risks by identifying potential health issues, establishing baseline data, and crafting tailored risk mitigation strategies. Candidates should assess how their health and lifestyle

choices align with job demands before applying, as maintaining a healthy standard is essential at OTML.

Our multidisciplinary teams conduct comprehensive assessments, aligning with industry requirements to ensure candidates meet necessary health standards. These evaluations typically include assessing cardiovascular, respiratory, and auditory systems, blood pressure, and body mass index. While healthcare professionals may provide recommendations, the employer ultimately decides on recruitment. Applicants must provide truthful health information, as false details can jeopardize safety and pose risks. If a test is failed, there is a standard procedure in place.

The pre-employment and medical assessment requirements and process apply to both OTML employees and contractors. Medicals must be completed by an OTML approved health facility. For contractors undertaking a medical assessment at a different location, their medical assessment must be validated by the hospital team for employment. You are required to follow the OTML medical assessment process for the completion of OTML medical assessments.

Similar Exposure Groups (SEG) Health Considerations

A Similar Exposure Group (SEG) can be defined as a group of workers having the same general exposure profile and have similarity and frequency of the tasks they perform, the materials and processes with which they work and the similarity of the way they perform the tasks. The common approach to classifying a SEG is by task, process, job classification (description) and environmental agent. There are a range of specialised medicals depending on the tasks, health exposure risks, and controls in place. It is important to be clear and consistent when identifying and classifying SEGs and how the different roles are to be medically assessed. In the context of Ok Tedi pit to port operations, similar exposure groups (SEGs) are typically defined based on common characteristics or potential exposures to hazards within the operation.

OTML work groups include:

1. **Mining Worksite Personnel**:
    - This group includes employees directly involved in pit operations, such as miners, equipment operators, and maintenance workers.
    - They may be exposed to hazards such as heavy machinery, mining-related accidents, and exposure to dust or chemicals.
2. **Mill Operations Personnel:**
    - Responsible for operating milling equipment such as crushers, conveyors, grinding mills, and flotation cells. They monitor equipment performance, adjust process parameters as needed, and troubleshoot any operational issues to ensure optimal ore processing efficiency**.**
    - Monitor the milling process, analyse data, and make recommendations for process improvements to achieve production targets and maintain product quality

standards. They collaborate with other departments to optimize mill performance, minimize downtime, and address any process-related challenges.

- Perform preventive maintenance, troubleshooting, and repairs on mill equipment to ensure smooth operation and minimize production disruptions. They conduct regular inspections, identify potential equipment failures, and implement corrective measures to maintain operational reliability and safety**.**

3. **Transportation and Logistics Personnel:**
   - Staff involved in the transportation of materials from the pit to the port, including truck drivers, logistics coordinators, and loading/unloading personnel.
   - They may face risks associated with vehicle accidents, material handling injuries, and exposure to hazardous materials during transit.
4. **Port Workers:**
   - This group comprises employees and contractors working at the port facilities, including dock workers, cargo handlers, and port supervisors.
   - Hazards for port workers may include heavy lifting, working at heights, slips and falls, and exposure to marine-related risks.
5. **Maintenance and Repair Crews:**
   - Workers responsible for the maintenance and repair of equipment and infrastructure along the pit-to-port route, including mechanics, electricians, and welders.
   - They may encounter risks associated with working with heavy machinery, electrical hazards, and confined spaces.
6. **Environmental Monitoring and Compliance Personnel:**
   - Staff tasked with monitoring and ensuring compliance with environmental regulations along the pit-to-port route.
   - Their responsibilities may include air and water quality monitoring, waste management, and compliance reporting.
7. **Administrative and Support Personnel:**
   - Employees providing administrative support for pit-to-port operations, including office staff, supervisors, and managers.
   - While they may not be directly involved in frontline operations, they may face typical office-related hazards such as ergonomic issues, stress, and workplace violence.

By delineating specific roles within each SEG, OTML can better assess the unique risks and safety needs associated with each group. This allows for the implementation of targeted health and safety measures, training programs, and emergency response plans to protect the health and well-being of all personnel involved in the pit-to-port operations. A summary of roles can be found in the table below:

ESG	Role
1. Mining Worksite Personnel	• **Miners:** Responsible for extracting ore from the pit using heavy machinery and tools. • **Equipment Operators**: Operate machinery such as excavators, dump trucks, and drills for ore extraction and transportation within the pit. • **Maintenance Workers:** Conduct regular maintenance and repairs on mining equipment to ensure operational efficiency and safety.
2. Mill Operational Personnel	• **Mill Operators:** Manage the operation of the milling equipment to process ore into concentrate. • **Process Engineers**: Monitor and optimize the milling process to maximize efficiency and product quality. • **Maintenance Technicians**: Conduct maintenance and repairs on mill machinery to ensure continuous operation.
3. Transport & Logistics	• **Truck Drivers:** Operate heavy-duty trucks to transport ore from the pit to designated processing or storage areas. • **Logistics Coordinators:** Plan and coordinate transportation schedules, monitor inventory levels, and optimize logistics processes for efficient material flow. • **Loading/Unloading Personnel:** Assist with the loading and unloading of ore onto trucks or conveyor systems at various transfer points along the transportation route.
4. Port Workers	• **Dock Workers**: Handle cargo and oversee loading/unloading operations at the port facilities, ensuring safe and efficient transfer of ore onto ships or storage facilities. • **Cargo Handlers**: Use equipment such as cranes, forklifts, and conveyor belts to move ore between storage areas, trucks, and ships. • **Port Supervisors:** Provide oversight and coordination of port activities, including scheduling, safety inspections, and compliance with port regulations.
5. Maintenance & Repair Crews	• **Mechanics**: Conduct routine maintenance, troubleshooting, and repairs on mining equipment, vehicles, and machinery to prevent breakdowns and ensure operational readiness. • **Electricians:** Perform electrical installations, repairs, and inspections on equipment and infrastructure to maintain safe and reliable electrical systems. • **Welders**: Carry out welding and fabrication tasks to repair metal components, structures, and equipment as needed.
6. Environmental Monitoring & Compliance Personnel	• **Environmental Scientists**: Conduct environmental assessments, sampling, and monitoring to evaluate the impact of pit-to-port operations on air quality, water quality, and ecosystems. • **Compliance Officers**: Ensure adherence to environmental regulations and permit requirements by conducting audits, inspections, and regulatory reporting related to environmental management and compliance.

ESG	Role
7. **Administrative and Support Staff**	• **Office Staff:** Provide administrative support such as data entry, record keeping, scheduling, and communication within the pit-to-port operation. • **Supervisors and Managers**: Oversee daily operations, allocate resources, manage personnel, and ensure compliance with safety protocols, regulations, and company policies.

Medical Insurance

OTML requires all employees and contractors to have medical insurance. The company policy requires strict adherence to guidelines governing health services in the workplace. This includes implementing comprehensive insurance coverage, maintaining accurate records, and ensuring compliance with regulatory standards. Employees and contractor must be educated on the policy's provisions and procedures to facilitate seamless interactions with insurance providers and optimize health service delivery. Depending on the policy cover, limitations may apply with medical reimbursement. It is advised information and guidance be sought from the finance team to assist with any questions.

Workers Compensation

Appropriate workers' compensation insurance coverage is required for all employees. It is essential and includes effective rehabilitation and return to-work programs to support injured workers in their recovery and reintegration into the workforce. OTML have work health and safety (WHS) duties and require workers' compensation insurance. This covers payments to workers with a work-related injury or illness including lost wages if they can't work medical costs and rehabilitation expenses to help them return to work as soon as possible. Workers' compensation is a form of insurance payment to employees if they are injured at work or become sick due to their work. Employers take out workers compensation insurance to cover themselves and their employees.

4.2.2 Health Surveillance

Health Surveillance Program

OTML implements robust health management systems which is designed to provide the overall strategy and specific procedures to prevent workers and visitors to the workplace sustaining injury and ill health as a result of occupational exposures, and to monitor the health and well-being of employees and contractors throughout their tenure. This includes regular health surveillance programs to detect and mitigate occupational health risks effectively. Once an initial pre-employment/mandatory assessment has been completed and the Medical Examiner has reviewed and spoken with the patient, they will identify a risk level score and review period for when the Client will be required to be reassessed.

The classifications are categorised into: Low risk, Mild, Average, Above Average, Significant, and High risk. Depending on the assessment outcome and the health condition of the patient, they

will be required to have a health management plan developed. Defining their specific requirements and health needs to reduce and/or manage their health risks.

Medical Re-evaluation

Regular medical re-evaluation is essential to ensure mining workers maintain their fitness for work and safely perform their duties in the challenging mining environment. These assessments, conducted at designated intervals, consider occupational hazards, job demands, and individual health risks. They encompass comprehensive medical examinations, screenings for occupational health risks such as respiratory conditions or musculoskeletal injuries, and evaluations of task-specific fitness. Any changes in health status or medical conditions are promptly addressed, with appropriate accommodations or interventions implemented to mitigate risks and ensure worker safety. Additionally, information from these evaluations is shared with workers' managers to facilitate the provision of adequate support. This includes educating managers on workers' health statuses, any required accommodations, and strategies to promote worker well-being.

Ongoing education and awareness programs are also provided to workers, fostering proactive health management, and encouraging early reporting of health concerns. By prioritizing regular medical re-evaluations and facilitating effective communication between workers and their managers, OTML can ensure the health and safety of their workforce while maintaining productivity and operational efficiency.

For employees outside of OTML operational areas where no OTML Clinic is stationed, employees can seek health facilities approved by OTML to conduct follow up medicals.

Medical Referrals

If the medical re-evaluation reveals any concerning health issues or abnormalities that require further investigation or treatment beyond the scope of primary care, the attending physician may refer the worker to a hospital or specialized medical facility. This referral ensures that the worker receives the necessary diagnostic tests, consultations with specialists, and appropriate medical interventions to address their health condition effectively.

Upon referral to the hospital, the worker may undergo a series of diagnostic tests, including laboratory tests, imaging studies (such as X-rays, MRIs, or CT scans), or specialized procedures to obtain a comprehensive assessment of their health status and identify any underlying medical conditions. The worker may be scheduled for consultations with relevant specialists, such as orthopaedists, pulmonologists, cardiologists, or occupational health physicians, depending on the nature of their health concerns. These specialists provide expert evaluation and recommendations tailored to the worker's specific medical needs. Based on the findings from diagnostic tests and specialist consultations, a personalized treatment plan is developed to address the worker's health condition effectively. This may include medication management, physical therapy, surgical interventions, or other therapeutic modalities aimed at improving the worker's health and functional capacity.

After receiving treatment at the hospital, the worker may require ongoing follow-up care to monitor their progress, adjust treatment regimens as needed, and address any complications or side effects. This ensures continuity of care and supports the worker's recovery and return to work process. Throughout the referral and treatment process, clear communication channels are maintained between the healthcare providers, the worker, and their employer. Regular updates on the worker's health status, treatment progress, and expected return-to-work timeline are shared to facilitate effective coordination and support.

By incorporating these actions into the outcomes of medical re-evaluation, mining companies can ensure that workers receive timely and appropriate medical care, promoting their health, safety, and well-being in the workplace.

Fit for Work Requirements

OTML is committed to ensuring that all employees and contractors are fit for work both physically and mentally. By actively managing psychosocial hazards in the workplace OTML promote a healthy and supportive work environment. For OTML, ensuring workers, both employees, and contractors, are fit for work is paramount due to the high-risk nature of the industry.

The company requirements include ensuring:

- All prospective workers undergo comprehensive medical assessments to evaluate their physical health, fitness, and suitability for the demands of the job. These assessments may include physical examinations, medical history reviews, and screenings for specific health conditions relevant to the mining environment.
- Regular health screenings are conducted for workers to monitor their health status and identify any emerging health issues that may impact their ability to work safely. These screenings may include assessments of vital signs, lung function tests, vision and hearing tests, and screenings for conditions such as respiratory diseases or musculoskeletal disorders.
- Workers undergo occupational health assessments to assess their fitness for specific job tasks and identify any occupational health hazards or risks they may be exposed to. This may involve evaluating physical capabilities, conducting fitness-for-duty assessments, and providing recommendations for workplace accommodations or modifications.
- Workers are subject to drug and alcohol testing as part of the company's substance abuse policy to ensure they are not under the influence of drugs or alcohol while on duty, which can impair judgment and reaction times, increasing the risk of accidents and injuries.

- Workers are required to obtain fitness-for-duty certifications from healthcare professionals to confirm they are medically fit to perform their job duties safely. These certifications may be required periodically or following an injury or illness that affects the worker's ability to work.
- Workers receive health education and training on topics such as occupational health and safety, hazard recognition, personal protective equipment (PPE) use, ergonomics, and injury prevention to equip them with the knowledge and skills to work safely in the mining environment.
- Workers are expected to comply with all health and safety regulations, policies, and procedures established by the company and regulatory authorities to minimize risks and prevent accidents and injuries in the workplace.

By ensuring workers are fit for work through these requirements, mining companies can mitigate risks, promote a safe work environment, and protect the health and well-being of their workforce.

4.2.3 Infectious & Communicable Diseases

The management of infectious and communicable diseases is a critical component of OTML's occupational health and wellbeing standard. This section outlines the protocols and measures implemented to prevent, identify, and manage infectious diseases within the workplace.

1. **Prevention and Control Measures**:
    - **Vaccination Programs**: Regular vaccination campaigns are conducted to protect employees and business partners from common infectious diseases.
    - **Hygiene Practices**: Strict hygiene protocols are enforced, including handwashing stations, availability of hand sanitizers, and regular cleaning and disinfection of workspaces.
    - **Personal Protective Equipment (PPE)**: Provision and mandatory use of PPE such as masks, gloves, and other relevant gear to reduce the risk of disease transmission.
    - **Education and Training**: Continuous education and awareness programs are conducted to inform employees about the risks, symptoms, and preventive measures for infectious diseases.
2. **Surveillance and Early Detection**:
    - **Health Screenings**: Regular health screenings and medical check-ups are conducted to detect infectious diseases early.
    - **Monitoring and Reporting**: Establishment of a robust system for monitoring and reporting incidences of infectious diseases within the workforce.
    - **Isolation Protocols**: Clear protocols for the isolation and treatment of infected individuals to prevent the spread of diseases.

3. **Response and Management**:
    - **Medical Support**: Access to medical facilities and professionals for the treatment and management of infectious diseases.
    - **Emergency Response Plans**: Comprehensive emergency response plans to manage outbreaks and reduce the impact on the workforce.
    - **Coordination with Health Authorities**: Collaboration with local and national health authorities to ensure a coordinated response to infectious disease threats.

4.2.4 Medical Redundancy

Medical redundancy refers to the processes and support systems in place to address situations where employees are unable to continue their employment due to medical reasons. This section outlines the policies and procedures for managing medical redundancy at OTML.

1. **Assessment and Documentation**:
    - **Medical Evaluation**: Thorough medical evaluations are conducted by qualified healthcare professionals to determine an employee's fitness for work.
    - **Documentation**: Comprehensive documentation of medical conditions and assessments to ensure transparency and accuracy in the redundancy process.
2. **Support and Counselling**:
    - **Employee Assistance Programs (EAP)**: Provision of counselling and support services to employees undergoing medical redundancy to help them cope with the transition.
    - **Career Transition Services**: Assistance with career planning and transition for employees who are medically redundant, including retraining and job placement support.
3. **Compensation and Benefits**:
    - **Severance Packages**: Fair and adequate severance packages for employees who are made redundant due to medical reasons, in accordance with OTML's policies and legal requirements.
    - **Continuation of Benefits**: Options for continued health benefits and other relevant support services for a specified period post-redundancy.
4. **Legal and Ethical Considerations**:
    - **Compliance**: Adherence to all relevant legal and regulatory requirements regarding medical redundancy.
    - **Ethical Practices**: Ensuring that the medical redundancy process is conducted ethically, with respect and dignity for the affected employees.

- **Medical redundancy authorisation sign-off**: medical cases for redundancy to be confirmed by the Chief Medical Officer (CMO) or the assigned delegate. Case to be presented to the respective General Manager and Health Services Manager in a panel discussion and authorised by the Managing Director for release.

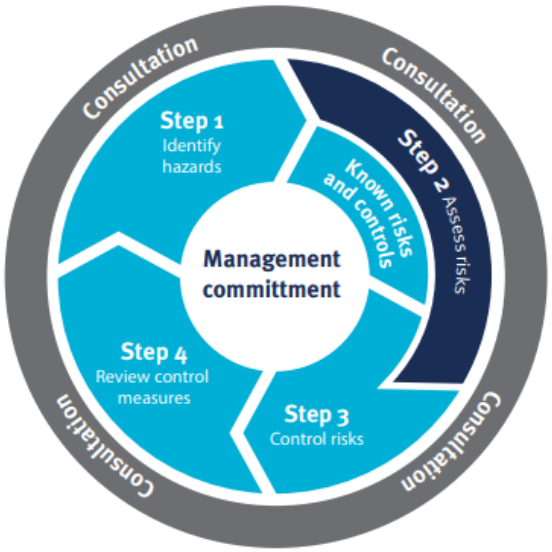
By implementing these standards, OTML aims to protect the health and wellbeing of its workforce, ensuring a safe and supportive working environment.

4.2.5 Psychosocial Hazard Management

Psychosocial hazards are anything at work that may cause psychological or physical harm. These stem from:

- the way the tasks or job are designed, organised, managed and supervised
- tasks or jobs where there are inherent psychosocial hazards and risks
- the equipment, working environment or requirements to undertake duties in physically hazardous environments, and
- social factors at work, workplace relationships and social interactions.

The four steps which are required to adequately support psychosocial risk management include:



1. Identify the risks: Determine what work-related factors & situations exist that could result in psychological harm
2. Assess the risks: Review data & consult workers to access the impacts of exposure to hazards
3. Implement the controls: Regularly monitor to ensure controls are working as intended & change or modify if necessary
4. Review the controls: Eliminate or reduce risks with fit-for-purpose & effective control measures

Step 1: Identify the risks

Improving workplace mental health is influenced by controlling and managing psycho-social hazards across three key areas as outlined below:

- **Work Design** (Organisational Factors) – how work is organised, job design, systems, policies, and processes.

- **Work Climate** (Social Factors) – how people operate within the work systems, culture, and interpersonal relationships within the workplace.
- **Physical work environment** – equipment and exposure to hazardous tasks such as physical violence, noise, conflict.

Step 2: Assess the risks

Once the hazards have been identified the level of risk that the identified hazards present needs to be assessed. Methods of assessing the level of risk include evaluating levels of productivity, rates of absenteeism, gathering information from workers, evaluating morale, and gathering feedback from customers. This information can be captured using tools such as a worker survey, conducting a workplace audit, analysing incident reports, and holding focus groups and/or interviews.

Step 3: Implement the controls

To determine what is reasonably practicable to manage psychosocial risks:

1. identify as many possible control measures as you can
2. consider which of these control measures are most effective, and
3. consider which controls are reasonably practicable in the circumstances.

After assessing the risk, the most appropriate control measure(s) that are reasonably practicable in the circumstances need to be selected and implemented. When selecting a particular control measure, it is important to be able to justify why it was chosen over a different measure. It is important in this step of the risk management process that you are consulting with workers on what might be appropriate control measures. Appropriate control measures will depend upon various hazards and factors unique to your workplace.

Step 4: Review the control measures

The last step of the risk management process is to review the effectiveness of the implemented control measures to ensure they are working as planned. If a control measure is not working effectively, it must be reviewed and modified or replaced.
Common review methods include inspecting the workplace, consultation, and analysing records and data. You can use the same methods as in the initial hazard identification step to check control measures. You must also consult your workers and their HSRs.

The person reviewing your control measures should have the authority and resources to conduct the review thoroughly and be empowered to recommend changes where necessary.

Questions to consider may include:

- Are control measures working effectively, without creating new risks?

- Have workers reported feeling stressed or are they showing signs of harm?
- Have all psychosocial hazards been identified?
- Have risks changed or are they different to what you previously assessed?
- Are workers actively involved in the risk management process?
- Are workers openly raising health and safety concerns and reporting problems promptly?
- Has instruction and training been provided to all relevant workers?
- Are there any upcoming changes that are likely to result in a worker being exposed to psychosocial hazards?
- Are new control measures available that might better control the risks?
- Have risks been eliminated or minimised as far as is reasonably practicable?

If the effectiveness of the control measures is in doubt, go back through the risk management steps, review your information and make further decisions about control measures.

Managing psychosocial hazards is crucial to safeguard the mental health and well-being of workers (both employees and contractors). Key considerations and requirements include:

- Demonstrating leadership commitment to promoting mental health and well-being in the workplace, including visible support from senior management, allocation of resources for mental health initiatives, and integration of mental health considerations into decision-making processes.
- Developing and implementing policies and procedures that address psychosocial hazards, such as anti-bullying and harassment policies, conflict resolution protocols, and procedures for managing work-related stress and fatigue.
- Conducting comprehensive risk assessments to identify psychosocial hazards in the workplace, such as high job demands, low job control, shift work, isolation, interpersonal conflict, and organizational change.
- Implementing proactive measures to prevent or minimize psychosocial hazards, such as promoting work-life balance, providing social support networks, fostering positive workplace relationships, and offering stress management programs.
- Establishing mechanisms for early intervention and support for workers experiencing psychosocial difficulties, including regular check-ins, performance reviews, and accommodations for individuals with mental health conditions.
- Offering access to confidential support services, such as employee assistance programs (EAPs), counselling services, and peer support networks, to assist workers in coping with personal and work-related stressors and mental health concerns.

- Providing training and education to workers and managers on psychosocial hazards, mental health awareness, coping strategies, conflict resolution, and communication skills to promote a supportive work environment and reduce stigma surrounding mental health issues.
- Regularly evaluating the effectiveness of psychosocial hazard management strategies through feedback mechanisms, employee surveys, incident reporting, and performance indicators. Using this information to continually improve and refine psychosocial hazard management practices.

Managers play an important role in promoting employee wellbeing and positive working relationships. Advising staff of the availability of the employee assistance service for counselling and support may assist employees with early signs of stress can aid in the early intervention of health and safety and injury management. By implementing these considerations and requirements, OTML can create a supportive work environment that promotes mental health and well-being, reduces the risk of psychosocial hazards, and enhances overall organizational performance and resilience.

4.2.6 Mental Health Support and Employee Assistance Program (EAP)

Mental Health Support

Mental health support initiatives aim to create a supportive and inclusive work environment while promoting the well-being of employees.

Some examples include:

- **Programs & Policies**:
  - **Wellness Programs**: Wellness programs promote holistic well-being by providing resources and activities to support physical, mental, and emotional health. These initiatives may include fitness classes, mindfulness sessions, stress management workshops, nutrition education, and access to wellness apps or resources.
  - **Policy Development**: Implementing policies that prioritize mental health, such as flexible sick leave policies, accommodations for employees with mental health conditions, and anti-discrimination policies, demonstrates a commitment to creating an inclusive and supportive work environment for all employees.
- **Training**:
  - **Mental Health Awareness:** Providing education and training on mental health awareness and stigma reduction can help foster a supportive culture where employees feel comfortable discussing mental health openly. Training sessions may cover topics such as recognizing signs of mental health issues, destigmatizing mental illness, and promoting self-care strategies.
  - **Mental Health First Aid Training**: Organizations can train designated employees as mental health first aiders to provide initial support and guidance to colleagues

experiencing mental health challenges. These individuals are equipped with the skills to recognize signs of distress, offer empathetic support, and refer individuals to appropriate resources.

  - **Leadership Training**: Training managers and leaders on how to effectively support employees' mental health can have a significant impact on organizational culture. Leaders should be equipped with communication skills, empathy, and knowledge of available resources to effectively support employees experiencing mental health challenges.

- **Peer Support Networks**: Establishing peer support networks or employee resource groups focused on mental health allows employees to connect with others who may have similar experiences or challenges. These groups provide a safe space for sharing experiences, offering support, and fostering a sense of community and belonging.
- **Regular Check-ins and Feedback Mechanisms**: Encouraging regular check-ins between managers and employees allows for ongoing communication about workload, stressors, and well-being. Feedback mechanisms, such as employee surveys or suggestion boxes, can also provide valuable insights into employees' experiences and needs related to mental health support.
- **Access to Mental Health Resources**: Providing easy access to mental health resources, such as helplines, online self-assessment tools, educational materials, and community resources, ensures that employees have the information and support they need to prioritize their mental health.
- **Mental Health First Aiders:** Trained designated employees who provide initial support and guidance to colleagues experiencing mental health challenges. They are equipped with skills to recognize signs of distress, offer empathetic support, and refer individuals to appropriate resources. Mental Health First Aiders play a crucial role in promoting mental health awareness, reducing stigma, and fostering a supportive workplace culture where employees feel comfortable seeking help and support when needed.
- **Employee Assistance Programs (EAPs):** EAPs offer confidential counselling and support services to employees experiencing personal or work-related challenges, including mental health issues. These programs often provide access to professional counsellors, resources for stress management, financial advice, and referrals to community resources.

By implementing a combination of these organizational mental health support initiatives, companies can create a culture that prioritizes employee well-being, reduces stigma surrounding mental health, and fosters a supportive and resilient workforce.

Mental Health First Aiders

Mental Health First Aiders play a vital role in promoting mental well-being and providing support to individuals experiencing mental health challenges in the workplace. These individuals undergo specialized training to recognize the signs and symptoms of common mental health conditions, such as anxiety, depression, and stress-related disorders. Their primary role is to offer initial assistance, guidance, and non-judgmental support to colleagues who may be experiencing mental health difficulties or crises.

Mental Health First Aiders act as a bridge to professional help and resources, providing information on available support services and encouraging individuals to seek appropriate assistance. By fostering a culture of openness, understanding, and support, Mental Health First Aiders contribute to creating mentally healthy workplaces where employees feel valued, supported, and empowered to prioritize their mental well-being.

OTML promotes awareness of mental health support by making available Mental Health First Aider. If a worker at OTML who is experiencing mental health challenges or notices a colleague in distress recognizes the need for support, which include symptoms such as changes in behaviour, mood swings, increased stress levels, or verbal expressions of distress. Is recommended to seek out a mental health first aider within the organization. OTML ensures that mental health first aiders are easily identifiable and accessible, possibly through designated contact persons, posted contact information, or an internal directory.

A conversation with the mental health first aider can be initiated either in person or through alternative communication channels (e.g., email, phone). Individuals may express their concerns, seek advice, or request assistance in accessing appropriate support services. The mental health first aider can engage in a confidential discussion with the worker, actively listening to their concerns and offering empathetic support. They provide a safe and non-judgmental space for the worker to express their feelings and share their experiences. The mental health first aider assesses the worker's mental health needs and provides immediate support and guidance. This may include offering coping strategies, recommending self-care practices, providing information about available mental health resources, or facilitating access to professional help if necessary.

If the mental health first aider determines that the worker requires further support beyond their scope of practice, they may refer the worker to appropriate mental health professionals or support services within or outside the organization. This could include employee assistance programs (EAP), counselling services, or community mental health resources. The mental health first aider will follow up with the worker to check on their well-being and provide ongoing support as needed. They are required to maintain confidentiality and respect the worker's privacy throughout the process, ensuring that they feel supported and empowered to prioritize their mental health. By implementing this process, OTML demonstrates its commitment to promoting mental health awareness and providing accessible support services for its employees, fostering a supportive and inclusive work environment.

Mental Health Clinician

Overall, mental health clinicians play a crucial role in helping individuals navigate and overcome mental health challenges, improve their quality of life, and achieve greater emotional well-being.

A mental health clinician is a trained professional who provides support with issues in the workplace by conducting assessment, diagnosis, treatment, and providing support services to individuals experiencing mental health issues or emotional distress. Some common duties and tasks of a mental health clinician include:

- **Assessment and evaluation:** Conducting comprehensive assessments to evaluate clients' mental health status, including their psychological, emotional, behavioural, and social functioning. This may involve interviewing clients, administering standardized tests or assessments, and gathering information from other sources, such as medical records or collateral contacts.
- **Diagnosis and treatment planning**: Using diagnostic criteria to identify mental health disorders or conditions and develop individualized treatment plans tailored to clients' needs and goals. This may involve formulating treatment goals, selecting appropriate interventions, and collaborating with clients to develop coping strategies and skills.
- **Psychotherapy/counselling**: Providing evidence-based psychotherapy or counselling interventions to help clients address a wide range of mental health concerns, including depression, anxiety, trauma, substance abuse, relationship issues, and adjustment difficulties. Therapeutic modalities may include cognitive-behavioural therapy (CBT), dialectical behaviour therapy (DBT), psychodynamic therapy, mindfulness-based approaches, and more.
- **Crisis intervention**: Providing immediate support and intervention for clients experiencing mental health crises or emergencies, such as suicidal ideation, self-harm, acute psychosis, or severe emotional distress. This may involve conducting risk assessments, safety planning, and coordinating referrals to emergency services or psychiatric facilities as needed.
- **Case management and coordination**: Collaborating with other healthcare providers, social services agencies, and community resources to coordinate care and support for clients with complex needs. This may include advocating for clients' rights and access to services, facilitating referrals, and ensuring continuity of care across different treatment settings.
- **Education and advocacy**: Providing psychoeducation to clients and their families about mental health conditions, treatment options, coping strategies, and self-care practices.

Advocating for clients' needs and rights within the healthcare system and community to reduce stigma, promote access to care, and improve mental health outcomes.

- **Documentation and record-keeping**: Maintaining accurate and confidential records of client assessments, treatment plans, progress notes, and other documentation in accordance with ethical and legal standards. This may include documenting clinical observations, treatment interventions, and communication with other healthcare providers.

Employee Assistance Program (EAP)

The EAP is a workplace benefit designed to support employees in managing personal or work-related challenges that may affect their well-being, performance, or productivity. The EAP typically provides a range of confidential services, including:

- **Counselling and therapy:** EAPs offer access to professional counsellors or therapists who provide confidential support and guidance to employees facing personal or work-related issues. Counselling services may address a variety of concerns, such as stress, anxiety, depression, relationship problems, substance abuse, grief, or financial difficulties.
- **Mental health support**: EAPs offer resources and assistance for mental health concerns, including screenings, assessments, referrals to mental health professionals, and information on mental health conditions and treatment options.
- **Crisis intervention:** EAPs provide immediate support and intervention for employees experiencing crises or emergencies, such as traumatic events, accidents, or sudden life changes. Crisis intervention services may include 24/7 access to counsellors, hotlines, or emergency response teams.
- **Work-life balance:** EAPs offer resources and tools to help employees manage work-related stress and achieve a healthy balance between work and personal life. This may include assistance with time management, stress reduction techniques, parenting support, elder care resources, and referrals to community services.
- **Legal and financial consultation:** EAPs provide access to legal and financial consultation services to help employees address legal issues, financial concerns, or workplace conflicts. This may include legal advice, financial planning, debt management, budgeting assistance, and mediation services.
- **Health and wellness programs:** EAPs may offer health and wellness programs to promote employee well-being and prevent health problems. This may include fitness programs, smoking cessation support, nutrition counselling, weight management programs, and health screenings.

- **Training and education:** EAPs provide training and education for employees and managers on a variety of topics related to personal and professional development, including stress management, communication skills, conflict resolution, and resilience building.

Overall, the Employee Assistance Program serves as a valuable resource for employees seeking support and assistance in addressing a wide range of personal and work-related challenges, ultimately promoting a healthier and more productive workforce.

4.3 Environmental Health & Hygiene Standards

4.3.1 Industrial Environmental Exposure Monitoring

Environmental health and hygiene standards encompass measures to protect the health and well-being of workers, minimize environmental impacts, and ensure compliance with regulatory requirements. When measuring and monitoring environmental exposure levels a range of factors are considered including identifying similar exposure groups, occupational exposure limits on exposure to hazardous substances such as chemicals, biological agents, and physical hazards like noise and radiation. These limits help prevent occupational illnesses and injuries.

Making decisions about work groups who rotate between multiple job types (and potentially SEGs) may require assigning the worker to the dominant SEG based on time spent or intensity of exposure. Factors which are to be considering include: Process (type / operation), Environment (weather, age of plant), Temporal (work cycles / season), Behavioural (training / practices), Incidental (spills / maintenance), Sampling (method).

Sequential methodology for the determination of SEG classification bands	
1	Sub-divide the mining operations into sampling areas.
2	Subdivide the sampling areas into **Activity Areas** using provided activity codes.
3	Ensure that adequate measurements are taken or that sufficient data already exists.
4	Compare data (measured or historical) from each **Activity Area** with occupational exposure limit (OEL) values.
5	For a single pollutant (no additive effects) a comparison is made with the OEL. Once this is done **Activity Areas** are categorized into classification bands based on extent of exposure.
6	For multiple pollutants with combined effects, assess exposure against OEL using the combined effect equation. Once this is done **Activity Areas** are categorized into classification bands based on extent of exposure.

Source: South African Mines Occupational Hygiene Programme (SAMOHP), Codebook. Directorate: Occupational Hygiene, Department of Minerals and Energy (2002).

Occupational hygiene data should be collected and categorized in a form that can be statistically analysed. The data should provide information to pinpoint unacceptable exposures whilst allowing trending. Key components of these standards include:

- **Air quality management:** Implementing measures to monitor and control air pollutants generated by mining activities, such as dust, particulate matter, and diesel emissions. This may involve using dust suppression techniques, installing air quality monitoring systems, and providing respiratory protection for workers.
- **Water management:** Implementing measures to minimize water contamination and ensure the safe disposal of wastewater generated by mining operations. This may include implementing sediment and erosion control measures, treating wastewater to remove contaminants, and complying with water quality standards and discharge limits.
- **Waste management:** Implementing measures to minimize the generation of waste and ensure the safe handling, storage, and disposal of waste materials generated by mining operations. This may involve segregating and recycling waste materials, implementing waste reduction initiatives, and complying with waste management regulations.
- **Noise management**: Implementing measures to monitor and control noise levels generated by mining equipment and activities to protect workers from hearing loss and minimize noise impacts on surrounding communities. This may involve using noise-reducing equipment, implementing noise control measures, and providing hearing protection for workers.
- **Hazardous materials management**: Implementing measures to safely handle, store, and dispose of hazardous materials used in mining operations, such as chemicals, fuels, and explosives. This may involve implementing chemical management plans, providing training on hazardous materials handling, and complying with hazardous materials regulations.
- **Personal hygiene facilities:** Providing adequate facilities for personal hygiene, such as washrooms, showers, and handwashing stations, to ensure workers can maintain proper hygiene practices and minimize the risk of contamination and infection.
- **Vector control:** Implementing measures to control vectors such as mosquitoes, flies, and rodents that may transmit diseases or cause nuisance to workers. This may involve implementing vector control programs, using insecticides or repellents, and maintaining clean and sanitary facilities.
- **Training and education:** Providing training and education to workers on environmental health and hygiene standards, including proper waste management practices, personal hygiene, and the use of protective equipment. This helps ensure that workers are aware

of their responsibilities and can contribute to maintaining a safe and healthy work environment.

By adhering to these environmental health and hygiene standards, mining organizations can protect the health and safety of workers, minimize environmental impacts, and demonstrate their commitment to responsible mining practices.

4.3.2 Non-Communicable Disease Management

The control processes to manage and mitigate non-communicable diseases (NCDs) typically involve targeted interventions to reduce the population of disease-carrying vectors, such as mosquitoes, ticks, and rodents, and minimise their contact with humans. These processes aim to prevent the transmission of vector-borne diseases and reduce the burden of NCDs associated with vector exposure. Key components of vector control processes include:

- **Surveillance and monitoring:** Regular surveillance of vector populations and disease prevalence to assess the risk of NCD transmission and inform targeted control measures. This may involve trapping, sampling, and testing vectors for pathogens, as well as monitoring disease incidence and prevalence in human populations.
- **Habitat modification:** Identification and elimination of breeding sites and conducive environments for vectors to prevent their proliferation. This may include removing standing water, clearing vegetation, improving drainage, and implementing environmental modifications to reduce vector breeding habitats.
- **Chemical control:** Application of insecticides, larvicides, repellents, and other chemical agents to control vector populations and reduce their abundance. This may involve indoor residual spraying, fogging, larval source management, and treating mosquito nets and clothing with insect repellents.
- **Biological control:** Introduction of natural predators, parasites, or pathogens that target vector species and help regulate their populations. This may include the release of predatory fish, insects, or bacteria to control mosquito larvae or the use of genetically modified organisms to disrupt vector reproduction.
- **Personal protection measures:** Promotion of personal protective measures to reduce human-vector contact and prevent disease transmission. This may include the use of insect repellents, mosquito nets, protective clothing, and screening of doors and windows to prevent vector entry into homes and workplaces.
- **Community engagement and education:** Collaboration with communities to raise awareness of vector-borne diseases, their transmission routes, and preventive measures. This may involve community outreach programs, educational campaigns, and participatory approaches to empower communities to take ownership of vector control efforts.

- **Integrated vector management (IVM):** Implementation of a holistic and interdisciplinary approach to vector control that combines multiple strategies and interventions tailored to local epidemiological, ecological, and social contexts. IVM emphasizes the integration of surveillance, prevention, control, and monitoring activities to achieve sustainable and effective vector-borne disease control.

By implementing comprehensive vector control processes, OTML, public health authorities, governments, and communities can reduce the incidence of vector-borne NCDs, improve health outcomes, and enhance the overall well-being of populations at risk of vector-borne diseases.

4.3.3 Camps & Catering Services

To enable OTML to ensure the health and safety of workers, prevent foodborne illnesses, and promote a clean and sanitary living and working environment in its camps. Internal and external stakeholder monitor on a regular basis the management of the camp and catering work environment, work practices, and facilities. The work environment must be maintained so that it remains in a clean condition. Broken or damaged furniture, fixtures, and fittings, including plumbing, air-conditioning, and lighting should be replaced or repaired promptly. Facilities must be clean, safe, accessible, and in good working order. Consumable items, including soap and toilet paper, should be replenished regularly. Workplaces and facilities should be cleaned regularly taking into account the type of work performed, the likelihood of contamination, the number of workers using them, including during shiftwork, and the type of facility, such as eating areas, toilets, handbasins and showers.

Food and camp hygiene requirements are essential to ensure the health and well-being of workers and prevent the spread of foodborne illnesses. Where a OTML has provided accommodation for workers, they must ensure that the accommodation is maintained so that the workers are not exposed to risks to health and safety during its use.

The following food and camp standards are required to be adhered and protocols put in place:

- **Food safety standards**: Adhering to strict food safety standards to ensure that all food provided to workers is safe for consumption. This includes sourcing food from reputable suppliers, ensuring proper storage and handling procedures, and maintaining appropriate temperatures during food preparation and serving.
- **Camp cleanliness:** Maintaining clean and sanitary conditions in all areas of the camp, including dining facilities, kitchens, food storage areas, and accommodation units. Regular cleaning and sanitation practices should be implemented to prevent the spread of bacteria, viruses, and other contaminants.
- **Water quality**: Ensuring the quality and safety of drinking water by regularly testing water sources for contaminants and implementing appropriate treatment measures, such as filtration or chlorination, to ensure that water meets regulatory standards for potable water.

- **Waste management**: Implementing proper waste management practices to minimize the risk of contamination and pest infestations. This includes segregating and disposing of waste properly, maintaining clean and sanitary waste storage areas, and implementing recycling and composting programs where feasible.
- **Personal hygiene facilities:** Providing adequate facilities for personal hygiene, such as handwashing stations, showers, and toilets, to ensure that workers can maintain proper hygiene practices. These facilities should be clean, well-maintained, and easily accessible to all workers.
- **Pest control:** Implementing measures to control pests such as flies, rodents, and insects that can contaminate food and spread disease. This may include implementing pest control programs, using insecticides or traps, and maintaining clean and sanitary conditions to prevent pest infestations.
- **Training and education**: Providing training and education to camp staff on food safety and hygiene practices, including proper handwashing techniques, sanitation procedures, and food handling practices. Workers should be aware of their responsibilities and the importance of maintaining clean and hygienic conditions in the camp.

Checks & Inspections

To ensure the safety and well-being of workers in mining camps, various checks and inspections are necessary. These include:

- **Facility Inspection**: Regular inspections of camp facilities, including accommodation units, dining areas, kitchens, and recreational spaces, are essential to ensure they meet health, safety, and hygiene standards.
- **Food Handling and Storage Inspection**: Inspections should be conducted to assess the handling, storage, and preparation of food in camp kitchens. This includes checking for proper food storage temperatures, cleanliness of food preparation surfaces, and compliance with food safety regulations.
- **Water Quality Testing**: Regular testing of drinking water sources within the camp to ensure they meet quality standards and are free from contaminants, such as bacteria, viruses, and chemical pollutants.
- **Waste Management Inspection:** Inspections of waste management practices to ensure proper segregation, storage, and disposal of waste materials, including general waste, recyclables, and hazardous materials.
- **Health and Sanitation Inspection:** Assessments of sanitation facilities, such as toilets, showers, and handwashing stations, to ensure they are clean, well-maintained, and adequately stocked with hygiene supplies.
- **Pest Control Inspection:** Regular inspections for pests, such as rodents, insects, and other vermin, to prevent infestations and minimize health risks to camp occupants.

- **Environmental Compliance Inspection**: Assessments of camp operations to ensure compliance with environmental regulations, including measures to minimize impacts on local ecosystems, wildlife, and water resources.
- **Occupational Health and Safety Inspection:** Inspections to assess compliance with occupational health and safety regulations, including ergonomic assessments of workstations, provision of personal protective equipment (PPE), and implementation of safety training programs for camp workers.

To ensure effective execution of necessary actions for conducting checks and inspections in mining camps, it's vital to establish clear protocols and assign responsibility to trained personnel or dedicated inspection teams. These individuals should follow standardized protocols and checklists outlining specific areas to assess, criteria for evaluation, and corrective actions for identified issues. Regular inspections are to be scheduled considering factors such as camp occupancy and operational activities, and detailed records of findings should be maintained using standardized forms or digital tools. Action items are to be prioritized based on severity and promptly addressed to mitigate risks, with proactive measures implemented to resolve deficiencies. Communication of findings, action plans, and progress updates to relevant stakeholders is crucial for fostering transparency and accountability.

By conducting these checks and inspections regularly and addressing any identified issues promptly, OTML can create safer, healthier, and more comfortable living and working environments for their employees and contractors in mining camps.

4.3.4 Quarantine Protocols

The standard for quarantining, caring for, and cleaning accommodation for a person requiring to be isolated for health safety reasons on a mining camp, the following is required:

- **Quarantine Protocol Execution:**
  - Designate specific quarantine facilities or accommodations separate from other camp areas to minimize the risk of transmission.
  - Implement clear signage and communication protocols to identify quarantine areas and inform camp occupants of quarantine procedures.
  - Assign dedicated staff or trained volunteers to oversee quarantine operations and provide support to quarantined individuals.
- **Medical Assessment and Care Implementation:**
  - Establish a designated area within the camp for medical assessments and consultations, equipped with necessary medical supplies, equipment, and telecommunication facilities for remote consultations if needed.
  - Train camp medical personnel on symptom recognition, diagnostic procedures, and treatment protocols for common illnesses encountered in the camp setting.

- Ensure access to medical care providers, such as doctors, nurses, or paramedics, either onsite or through telemedicine services, to assess and provide appropriate care to sick individuals.

- **Infection Control Measures Implementation:**
  - Provide comprehensive training to camp staff on infection control practices, including hand hygiene, respiratory etiquette, and proper use of personal protective equipment (PPE) such as masks and gloves.
  - Implement regular disinfection and cleaning schedules for high-touch surfaces, common areas, and shared facilities using approved disinfectants and cleaning protocols.
  - Ensure availability of handwashing stations, hand sanitizers, and tissues in strategic locations throughout the camp to promote good hygiene practices among occupants.
- **Communication Protocols Implementation:**
  - Establish a designated communication channel or hotline for reporting illness symptoms, suspected cases, or exposure incidents to camp management and health authorities.
  - Provide clear instructions and contact information for sick individuals to communicate their needs, concerns, or emergencies to camp staff or medical personnel.
  - Facilitate regular updates and communication with quarantined individuals and their contacts to provide information, support, and reassurance throughout the quarantine period.
- **Support Services Provision:**
  - Coordinate with camp catering services to ensure provision of nutritious meals and adequate hydration to sick individuals in quarantine, considering dietary restrictions or preferences.
  - Offer psychological support and counselling services to address emotional needs, anxiety, or stress experienced by sick individuals during quarantine, either through onsite counsellors or remote telehealth services.
  - Arrange for delivery of essential supplies, medications, or personal hygiene products to quarantined individuals to meet their basic needs and ensure comfort during isolation.

- **Accommodation Cleaning and Disinfection Procedures:**
  - Develop detailed cleaning and disinfection protocols for accommodation facilities occupied by sick individuals, specifying the type of disinfectants, cleaning agents, and personal protective equipment (PPE) required.

- Train housekeeping staff on proper cleaning techniques, including disinfection of surfaces, laundering of linens, and disposal of waste generated from cleaning contaminated areas.
- Conduct thorough inspections and audits of cleaned accommodations to ensure compliance with hygiene standards and readiness for reoccupation after quarantine.

- **Monitoring and Follow-up Procedures:**
  - Establish a system for daily monitoring of the health status and symptoms of quarantined individuals, including temperature checks, symptom assessments, and documentation of observations.
  - Develop criteria and protocols for determining when quarantined individuals can safely end isolation and return to regular activities based on medical assessments, test results, and public health guidelines.
  - Conduct follow-up assessments and health checks for recovered individuals to ensure continued well-being and address any lingering health concerns or support needs after quarantine.
- **Training and Education Delivery:**
  - Organize regular training sessions and educational workshops for camp staff on executing health service practices related to quarantining, caring for, and cleaning accommodations for sick individuals.
  - Provide hands-on training opportunities, role-playing scenarios, and case studies to reinforce learning and build staff confidence in responding effectively to health-related incidents in the camp setting.
  - Utilize multimedia resources, visual aids, and printed materials to convey key messages, procedures, and best practices for managing illness outbreaks and maintaining camp health and safety standards.

By implementing these measures, mining camps can ensure the effective execution of tasks outlined in the workplace standard for managing health-related incidents and safeguarding the well-being of camp occupants during quarantine and illness episodes.

4.3.5 Waste Treatment & Waste Disposal

Sewage Treatment Plant (STP)

When considering waste and water treatment in the context of the health of people, OTML addresses these concerns through provisions aimed at safeguarding the well-being of workers and nearby communities. In the context of waste and water treatment in OTLM mining operations, key considerations and requirements can be inferred or referenced from related regulations and guidelines including:

- **Prevention of Health Hazards:** Proper waste management practices, including the safe handling, storage, and disposal of waste materials, help prevent potential health hazards

for workers and nearby residents. This is crucial in reducing exposure to harmful substances that may pose risks to respiratory health or cause other health issues.

- **Water Quality and Human Health:** Effective water treatment measures ensure that water sources used in mining and quarrying activities remain free from contaminants that could jeopardize human health. Clean water is essential not only for drinking but also for various activities such as bathing and cooking, directly impacting the health and well-being of individuals.
- **Minimization of Environmental Pollution:** By implementing pollution control measures and employing proper waste and water treatment technologies, the regulation aims to minimize environmental pollution. This, in turn, helps protect the health of people living in nearby communities by reducing exposure to pollutants that can adversely affect air, soil, and water quality.
- **Compliance Monitoring for Health Protection:** The regulation's requirements for monitoring and reporting ensure that operators adhere to standards for waste and water treatment, thereby protecting the health of workers and the surrounding population. Regular monitoring helps detect any deviations or incidents that could potentially compromise human health, allowing for prompt corrective action.
- **Training for Safe Practices:** Regulations often mandate training programs for workers to ensure they are equipped with the knowledge and skills necessary to handle waste and water treatment processes safely. This training not only promotes workplace safety but also helps protect the health of workers by minimizing their exposure to hazardous materials.

Overall, the primarily focuses is safeguarding the health of people by promoting responsible waste and water management practices within OTML mining operations. Compliance with these regulations helps mitigate health risks associated with exposure to pollutants and ensures the well-being of both workers and surrounding communities.

Biomedical Waste Disposal

Working with landfills and disposing/incinerating of biomedical waste requires strict adherence to health measures to protect both workers and the environment.

Here are some key considerations:

- **Personal Protective Equipment (PPE):**
  - Workers should wear appropriate PPE, including gloves, masks, goggles, and protective clothing, to prevent direct contact with biomedical waste and potential pathogens.
  - PPE should be properly fitted, regularly inspected, and replaced as needed to ensure effectiveness.

- **Training and Education:**
  - Comprehensive training programs should be provided to workers on safe handling and disposal practices for biomedical waste, including proper use of PPE, waste segregation, and emergency procedures.
  - Ongoing education and refresher courses should be conducted to reinforce safety protocols and raise awareness of health risks associated with biomedical waste.
- **Waste Segregation and Packaging:**
  - Biomedical waste should be segregated at the point of generation into different categories (e.g., infectious, sharps, chemical) and properly labeled to ensure safe handling and disposal.
  - Waste should be packaged in leak-proof, puncture-resistant containers that are compatible with the type of waste being disposed of, and containers should be securely sealed to prevent spills or leaks.
- **Safe Handling Practices:**
  - Workers should follow established procedures for safely handling biomedical waste, including avoiding unnecessary contact, minimizing the generation of aerosols or splashes, and using mechanical aids (e.g., trolleys, carts) for transporting heavy or bulky waste.
  - Sharp objects, such as needles and scalpels, should be handled with extreme caution and disposed of in puncture-resistant containers immediately after use.
- **Waste Transportation and Disposal:**
  - Biomedical waste should be transported in designated vehicles that are properly equipped and licensed for this purpose, with trained drivers who follow specific safety protocols during transport.
  - Disposal sites for biomedical waste should be licensed and compliant with regulatory requirements, including appropriate treatment methods (e.g., incineration, autoclaving) to inactivate pathogens and reduce environmental impact.
- **Environmental Controls:**
  - Landfill sites should have adequate environmental controls in place to prevent contamination of soil, air, and water from biomedical waste, including liners, leachate collection systems, and gas management systems.
  - Regular monitoring of environmental parameters (e.g., groundwater quality, air emissions) should be conducted to ensure compliance with regulatory standards and early detection of potential hazards.
- **Emergency Preparedness:**
  - Emergency response plans should be developed and regularly reviewed to address potential accidents, spills, or releases of biomedical waste, with clear procedures for containment, cleanup, and notification of relevant authorities.

  - Emergency response equipment, such as spill kits, absorbent materials, and personal decontamination supplies, should be readily available and maintained in working condition.
- **Health Surveillance:**
  - Regular health monitoring should be conducted for workers involved in handling biomedical waste, including screening for infectious diseases, immunizations, and medical surveillance to detect and manage occupational health risks.
  - Any health issues or injuries related to handling biomedical waste should be promptly reported, investigated, and treated as necessary.
- **Community Engagement and Communication:**
  - Engage with local communities and stakeholders to address concerns and provide information about the safe handling and disposal of biomedical waste, including potential health risks and environmental impacts.
  - Maintain transparent communication channels with regulatory agencies, community members, and other relevant stakeholders to ensure compliance and foster trust.
- **Continuous Improvement:**
  - Regularly review and update procedures, technologies, and training programs to incorporate best practices and emerging trends in biomedical waste management.

To ensure compliance with the required actions, OTML shall conduct internal audits and external assessments to identify areas for improvement and implement corrective actions to enhance safety and efficiency.

4.3.6 Discharge Points

Health considerations for discharge points, especially tailings from OTML mining operations, are critical due to potential environmental and public health impacts to the community. These include:

- **Water Quality Monitoring**: Regular monitoring of water quality at discharge points is essential to assess the levels of contaminants such as heavy metals (e.g., arsenic, lead, mercury) and other pollutants. This monitoring should encompass both surface water and groundwater.
- **Sedimentation Control**: Sediments can carry pollutants and nutrients, impacting aquatic ecosystems and downstream communities. Implementing effective sedimentation control measures can help minimize the release of suspended solids and sediments into water bodies.
- **Toxicity Testing**: Conducting toxicity testing on discharged water can provide insights into its potential harm to aquatic life and human health. This testing should evaluate the acute and chronic effects of contaminants on different organisms.

- **Community Health Impact Assessment**: Engaging with local communities to assess the potential health impacts of discharge on nearby populations is crucial. This assessment should consider factors such as water usage patterns, dietary habits, and cultural practices that may influence exposure to contaminants.
- **Risk Communication**: Transparent communication of monitoring results, potential risks, and mitigation measures to stakeholders is essential for building trust and ensuring community awareness. This includes providing accessible information in local languages and formats.
- **Mitigation Measures**: Implementing appropriate mitigation measures based on monitoring results and risk assessments is necessary to minimize adverse health effects. This may include upgrading treatment technologies, adjusting discharge practices, or implementing alternative waste management strategies.
- **Long-Term Monitoring and Adaptation**: Establishing a long-term monitoring program to track changes in water quality, ecosystem health, and community well-being is essential for adaptive management. This allows for adjustments to mitigation measures based on evolving understanding and new data.

4.4 Clinical Health Care Support Services Standards

The intent of the support provided by the OTML Health Services Team at each Employee Health and Wellness (EHW) Clinic is to provide medical assessments, screening and effective treatment including providing referrals to additional resources e.g. specialists at the hospital. In addition to providing healthcare services to employees and contractors, OTML extends its support to the local community by offering support and assistance with referrals to the hospital or to their local clinic.

4.4.1 Best Practice Requirements for Health Care Practitioner

Best Practice Requirements for Health Care Practitioner include:

- **Compliance with Regulations:** Practitioners must adhere to the acceptable practices, obligations, and regulatory requirements as outlined by the Medical Board of Papua New Guinea and the PNG Nursing Counsel. This ensures that all healthcare practitioners are registered, qualified, and competent to provide safe and effective care.
- **Compliance with Medical Board and PNG Nursing Counsel Regulations:** Practitioners must adhere to the acceptable practices, obligations, and regulatory requirements as outlined under the Health Practitioner Regulation Law. This ensures that all healthcare practitioners are registered, qualified, and competent to provide safe and effective care.
- **Provision of Good Care:**
  Practitioners are expected to ensure the provision of good care by:
  - Maintaining up-to-date knowledge and skills.

  - Providing evidence-based and patient-centred care.
  - Engaging in continuous professional development and reflective practice.
- **Patient Safety and Risk Minimization**
  Prioritizing patient safety is paramount. Practitioners should:
  - Implement and adhere to safety protocols and procedures.
  - Engage in risk assessment and management to prevent harm.
  - Report and address any incidents or adverse events promptly to improve care quality and safety.
- **Professional Behaviour**
  Maintaining professional behaviour is critical. Practitioners should:
  - Uphold the integrity and reputation of the profession.
  - Communicate effectively and respectfully with patients, families, and colleagues.
  - Manage boundaries and avoid conflicts of interest.
  - Demonstrate cultural competence and respect for diversity.

Implementation Guidance

To ensure healthcare practitioners meet high standards of practice, contributing to better patient outcomes and a safer healthcare environment. The following tasks are recommended:

- **Clear Policies and Procedures:** Develop and disseminate clear policies and procedures aligned with health regulations and Code of Conduct to guide daily practice.
- **Regular Training and Education:** Ensure all healthcare practitioners undergo regular training to stay updated on best practices and regulatory changes. This can be achieved through workshops, seminars, and online courses.
- **Support Systems:** Establish support systems and mechanisms such as peer support groups, counselling services, and access to mental health resources to help practitioners manage stress and maintain well-being.
- **Audit and Feedback**: Conduct regular audits of clinical practices and use the findings to provide constructive feedback and foster continuous improvement. Implement corrective actions where necessary.
- **Patient Involvement**: Engage patients in their care plans and decision-making processes to enhance patient satisfaction and outcomes. Encourage feedback from patients to improve care quality and patient satisfaction.

By adhering to these best practice requirements, healthcare practitioners will ensure high standards of care, enhance patient safety, and maintain professional integrity in their practice.

4.4.2 Medical Assessments, Screening & Provision of Medical Care

Regular medical assessments and screening programs are conducted to identify and address health issues proactively. This includes screening for occupational diseases, chronic conditions, and lifestyle-related health risks.

The medical assessment and screening process for employees and contractors at OTML clinics and hospitals involve several key steps:

1. **Pre-employment medical assessment:** Before commencing work, employees and contractors undergo a thorough medical assessment to ensure they are fit for their roles. This assessment may include a review of medical history, physical examination, laboratory tests, and screening for specific health conditions relevant to their job responsibilities.
2. **Periodic health screenings:** OTML conducts regular health screenings for employees and contractors to monitor their health status and identify any emerging health issues. These screenings may include measurements of vital signs, blood tests, vision and hearing tests, and screenings for conditions such as tuberculosis and HIV/AIDS.
3. **Occupational health assessments**: OTML clinics and hospitals provide occupational health assessments for employees and contractors to assess their fitness for specific job tasks and identify any occupational health hazards or risks. This may involve evaluating physical capabilities, conducting ergonomic assessments, and providing recommendations for workplace modifications or accommodations.
4. **Health surveillance programs:** OTML implements health surveillance programs to monitor the health of employees and contractors who may be exposed to occupational hazards or health risks in the workplace. This may include monitoring for exposure to hazardous substances, noise levels, vibration, and other occupational hazards, as well as providing medical monitoring and follow-up as needed.
5. **Health education and promotion**: OTML clinics and hospitals offer health education and promotion programs to raise awareness about preventive health measures, promote healthy lifestyles, and empower employees and contractors to take control of their health and well-being. This may include training on occupational health and safety, disease prevention, nutrition, and stress management.
6. **Referral and follow-up care**: If health issues are identified during the assessment and screening process, employees and contractors are referred to appropriate healthcare providers or specialists for further evaluation and treatment. OTML clinics and hospitals facilitate access to follow-up care and support services to ensure employees and contractors receive the necessary medical attention and support.

By implementing these medical assessment and screening processes, OTML clinics and hospitals prioritize the health and safety of employees and contractors, promote a healthy work environment, and mitigate the risk of occupational illnesses and injuries.

4.4.3 Outpatient Care

The outpatient care provided at the OTML clinics is focused on the provision of primary health care and emergency services. Outpatient care typically offers a range of medical services aimed at diagnosing, treating, and managing various health conditions for patients who do not require hospitalization. If a need arises and there is a requirement to provide trauma care, then the patient is to be referred to the Tabubil hospital for further treatment.

Outpatient care may include:

1. **Consultations:** Patients meet with healthcare professionals, such as physicians, nurses, or HEOs to discuss their medical concerns, receive assessments, and develop treatment plans.
2. **Diagnostic services:** The clinic may offer diagnostic tests and procedures, such as blood tests, imaging studies (X-rays, MRI, CT scans), electrocardiograms (ECGs), and other laboratory investigations to aid in diagnosis.
3. **Treatment and procedures:** Medical interventions, therapies, and minor procedures are performed on an outpatient basis. This may include administering medications, wound care, vaccinations, injections, and minor surgeries.
4. **Chronic disease management:** The clinic provides ongoing care and support for patients with chronic conditions such as diabetes, hypertension, asthma, and arthritis, including medication management, lifestyle counselling, and monitoring of disease progression.
5. **Preventive care:** Services aimed at preventing illness and promoting wellness, including health screenings, immunizations, counselling on healthy lifestyle behaviours (e.g., diet, exercise, smoking cessation), and routine check-ups.
6. **Specialty care:** Some clinics offer specialized services in areas such as cardiology, dermatology, orthopaedics, gynaecology, paediatrics, and mental health, providing expert care tailored to specific medical needs.
7. **Follow-up care:** Patients receive follow-up appointments to monitor their progress, adjust treatment plans, address any concerns or complications, and ensure continuity of care.
8. **Referrals and coordination**: The clinic may facilitate referrals to other healthcare providers or specialists for further evaluation or treatment beyond its scope of services. They also coordinate care with other healthcare facilities or providers involved in the patient's treatment.

Overall, outpatient care plays a crucial role in providing accessible, timely, and comprehensive medical care to individuals in the community, promoting health and well-being while minimizing the need for hospitalization.

4.4.4 Disease Control, Prevention & Management

In clinics and hospitals, infection control standards are crucial for preventing the spread of infectious diseases among patients, healthcare workers, and visitors. These standards include protocols for hand hygiene, sterilization, disinfection, and isolation procedures. Best practices associated with disease control and prevention encompass a range of strategies and approaches aimed at reducing the burden of infectious and non-communicable diseases. Some key practices include:

Strategy	Approach
Surveillance & monitoring	• Establishing robust systems for disease surveillance, including monitoring of disease trends, outbreaks, and emerging threats, to enable early detection and response.
Vaccination programs	• Implementing comprehensive vaccination programs to prevent the spread of vaccine-preventable diseases and achieve herd immunity within populations.
Public health education & awareness	• Conducting public health campaigns to raise awareness about disease prevention measures, promote healthy behaviours, and address misconceptions or myths surrounding diseases.
Infection control measures	• Implementing infection prevention and control practices in healthcare settings, including hand hygiene, proper use of personal protective equipment (PPE), and environmental cleaning, to reduce the risk of healthcare-associated infections.
Vector control	• Implementing integrated vector management strategies to control vector-borne diseases such as malaria, dengue fever, Zika virus, and Lyme disease, including vector surveillance, habitat modification, and use of insecticides.
Antimicrobial stewardship	• Promoting responsible use of antimicrobial agents to combat antimicrobial resistance, including surveillance of antimicrobial consumption, antimicrobial prescribing guidelines, and education for healthcare professionals and the public.
Health system strengthening	• Investing in resilient health systems that can effectively respond to disease outbreaks and provide essential healthcare services, including access to diagnostics, treatment, and preventive interventions.
Global collaboration & coordination	• Fostering international partnerships and collaborations between governments, non-governmental organizations, academia, and the private sector to share information, resources, and expertise in disease control and prevention efforts.
Research & innovation	• Supporting research and innovation in disease control and prevention, including the development of new vaccines, diagnostic tools, treatment modalities, and technologies for disease surveillance and monitoring.
Community engagement	• Engaging communities as partners in disease control and prevention efforts, involving them in decision-making processes, and leveraging local knowledge and resources to address health challenges effectively.

Strategy	Approach
Medical Waste Management	• Proper disposal of medical waste is essential to prevent the spread of infections and protect both healthcare workers and the environment. Occupational health standards outline procedures for the segregation, handling, storage, transportation, and disposal of medical waste.

By implementing these international best practices, countries can strengthen their capacity to prevent, detect, and respond to disease threats, ultimately improving public health outcomes and reducing the burden of diseases worldwide.

4.4.5 Facility Design and Resourcing

OTML ensures that all clinical health care facilities are designed and resourced to meet the healthcare needs of employees, contractors, and the local community. This includes adequate staffing, medical equipment, and infrastructure to deliver efficient and effective healthcare services. Key aspects of facility design and resourcing standards include:

Design	Feature
Accessibility and layout	• The clinic should be easily accessible to patients, including those with disabilities, with clear signage and designated parking areas. The layout should be well-organized, with separate zones for reception, waiting areas, consultation rooms, treatment rooms, and ancillary services, allowing for efficient patient flow and privacy.
Infection control measures	• The clinic should implement strict infection control measures to prevent the spread of infectious diseases. This includes proper ventilation systems, hand hygiene stations, cleaning and disinfection protocols, and isolation areas for patients with contagious illnesses.
Medical equipment & technology	• The clinic should be equipped with state-of-the-art medical equipment and technology to support diagnostic and treatment services. This may include examination tables, diagnostic imaging equipment (e.g., X-ray, ultrasound), laboratory equipment, patient monitoring systems, and telemedicine capabilities for remote consultations.
Staffing & training	• The clinic should have a qualified and skilled workforce, including medical doctors, nurses, allied health professionals, and administrative staff. Staff should receive ongoing training and professional development to maintain competency and stay updated on best practices in healthcare delivery.
Medications & supplies	• The clinic should maintain adequate stocks of medications, medical supplies, and consumables to meet patient needs and ensure continuity of care. Proper storage and inventory management systems should be in place to prevent medication errors and waste.
Emergency preparedness	• The clinic should have protocols and resources in place to respond to medical emergencies effectively. This includes emergency medical supplies, resuscitation equipment, emergency medications, and trained staff capable of providing immediate life-saving interventions.

Design	Feature
Patient-centred care	• The clinic should prioritize patient-centred care, with a focus on empathy, respect, and cultural sensitivity. This includes providing clear communication, involving patients in decision-making, respecting patient confidentiality, and accommodating diverse cultural and linguistic needs.
Regulatory compliance	• The clinic should comply with all relevant regulatory requirements and standards governing healthcare facilities, including building codes, licensing regulations, accreditation standards, and infection control guidelines.

Requirements & Use of Medical Devices

The requirements for the use and maintenance of medical devices in a clinic are crucial to ensure patient safety, minimizing the risk of equipment-related incidents, ensuring compliance with regulations, and optimal performance of the equipment.
Some key requirements include:

- **Training and competency**: All healthcare personnel who operate medical devices should receive comprehensive training on their proper use, including setup, operation, maintenance, and troubleshooting. Staff should demonstrate competency in using the equipment before being allowed to use it independently.
- **Manufacturer's instructions:** Medical devices should be used in accordance with the manufacturer's instructions for use (IFU). These instructions typically include information on installation, operation, cleaning, disinfection, sterilization, and maintenance procedures specific to each device.
- **Regular inspection and testing:** Medical devices should undergo regular inspection and testing to ensure they are functioning correctly and safely. This may include visual inspections, functional checks, performance testing, and calibration, as recommended by the manufacturer or regulatory standards.
- **Preventive maintenance:** Scheduled preventive maintenance should be performed on medical devices according to the manufacturer's recommendations or as specified in the clinic's maintenance schedule. This may involve cleaning, lubrication, calibration, replacement of worn parts, and other preventive measures to prevent equipment failures and ensure reliability.
- **Documentation and record-keeping:** The clinic should maintain accurate records of all medical devices, including purchase information, maintenance logs, service history, and documentation of inspections and testing. These records help track the status of equipment, document compliance with regulations, and facilitate troubleshooting and decision-making.
- **Safe handling and storage**: Medical devices should be handled and stored safely to prevent damage, contamination, or misuse. This includes proper lifting techniques,

avoiding exposure to extreme temperatures or humidity, and storing devices in designated areas away from potential hazards.

- **Quality assurance and risk management:** The clinic should implement quality assurance and risk management processes to identify, assess, and mitigate risks associated with the use of medical devices. This may include conducting risk assessments, implementing corrective and preventive actions, and participating in adverse event reporting systems.
- **Regulatory compliance**: The clinic should comply with all applicable regulatory requirements and standards governing the use and maintenance of medical devices, including local regulations, manufacturer guidelines, and accreditation standards.

By adhering to these facility design, resourcing standards, and use and maintenance of medical devices, health clinics can provide high-quality, safe, and efficient healthcare services that meet the needs of clients, patients and align with international best practices and codes of practice upholding the quality of patient care.

Health Clinic Staffing Requirements

OTML are required to safeguard the health and well-being of employees and contractor and in order to be able to do so, it is critical to have adequate people resourcing within the health services department to support the footprint of OTML work activities, considering the variety of work locations, work activities, environmental conditions, hours of work etc.

The health services team provide the following level of care, and must consider the specific work environment they are supporting, the status of work, to ensure they are able to:

- Provide emergency medical response and first aid treatment for workplace injuries or medical emergencies.
- Conduct initial assessments, triage, stabilize patients, and arrange for treatment and transportation to medical facilities under the direction of the physician if needed.
- Administer medications, perform procedures, and provide patient education and counselling.
- Offer counselling, support, and interventions for employees experiencing stress, anxiety, depression, or other mental health concerns.
- Provide resources and support for lifestyle management, chronic disease prevention, and healthy living practices.
- Dispense medications, provide medication counselling, and ensure safe medication management practices.

Determining the appropriate staffing levels for clinics at each site is crucial to ensure the health and safety of all workers. This requires a multifaceted approach, taking into account various factors such as the size and footprint of each location, the number of workers on-

site, the types of activities being conducted, and the specific needs of each clinic. Below is a detailed breakdown of the considerations and a sample calculation method to determine the necessary manpower.

Calculation Method for Staffing Requirements

To calculate the necessary staffing levels for each clinic, consider the following formula:

Required Staff = (Number of Workers Onsite Workers per Healthcare Professional) × Adjustment Factor

Required Staff = (Workers per Healthcare Professional Number of Workers Onsite) × Adjustment Factor

Where:

- **Number of Workers Onsite**: The total number of workers present at the site.
- **Workers per Healthcare Professional**: An industry standard ratio, such as 1 healthcare professional per 100 workers.
- **Adjustment Factor**: This accounts for site-specific variables, such as the risk level of activities, the footprint of the location, and operational hours.

For example, if a site has 500 workers, and the standard ratio is 1 healthcare professional per 100 workers, then 5 healthcare professionals are needed. If the site has high-risk activities or operates 24/7, an adjustment factor of 1.2 might be applied, leading to a requirement of 6 healthcare professionals.

Site-Specific Considerations

1. **Unmanned Sites (e.g., POM and KM 59)**:
    - Some sites are currently unmanned, which poses significant health risks. Implementing periodic visits by a mobile healthcare team or using telemedicine services can ensure basic health services are available.
2. **Lack of Back-to-Back Support**:
    - Clinics without back-to-back support for staff during R&R (Rest and Recreation) periods can lead to service gaps. For instance, if personnel are on R&R, it can result in a two-week wait time for medical services. This necessitates a rotational staffing model where relief personnel are available to cover these periods.
3. **24/7 Operations with Limited Clinic Hours**:
    - Sites with round-the-clock operations but clinics operating only during standard office hours pose significant health risks, especially if emergency callouts are required at night. Establishing an on-call system or extending clinic hours to provide 24/7 coverage can address this issue.
4. **Rotational Support and Skill Maintenance**:

- It is vital to allow health services personnel to rotate across different OTML sites to keep their skills current and provide consistent medical support. Rotational staffing can also help mitigate burnout and ensure high-quality care.

5. **Changes in Site Activities (e.g., Shutdown Coverage)**:
   - When there are changes in site activities, such as planned shutdowns, there may be an increased need for medical personnel due to heightened risks. Planning for additional temporary staff during these periods can ensure adequate coverage.

- **Implementing Rotational Staffing Models**: Ensure that health services personnel can rotate between different sites to cover R&R periods and maintain skill proficiency.
- **Extending Clinic Hours**: For sites with 24/7 operations, consider extending clinic hours or implementing an on-call system to provide medical support at all times.
- **Periodic Mobile Healthcare Teams**: Deploy mobile healthcare teams to visit unmanned sites regularly or provide telemedicine services to ensure that basic healthcare needs are met.
- **Adjusting Staffing Levels for High-Risk Activities**: Increase the adjustment factor for sites with high-risk activities or large footprints to ensure adequate staffing levels.

By carefully considering these factors and adjusting staffing levels accordingly, OTML can ensure that all workers have access to necessary medical support, enhancing overall safety and health outcomes.

4.4.6 Pharmacy Dispensary

The pharmacy dispensary requirements for a clinic, in accordance with the National Department of Health's Good Practice Guide for Papua New Guinea (PNG), include several essential elements to ensure the safe and effective dispensing of medications. These requirements are:

1. **Accurate Record-Keeping**: Maintain detailed records of medication inventory, storage, and dispensing activities. SAP software is used as the Electronic Management record system.
2. **Quality Assurance**: Implement measures to ensure the safety, efficacy, and integrity of medications.
3. **Standard Operating Procedures (SOPs)**: Adhere to SOPs for medication dispensing, labelling, and patient counselling.
4. **Regulatory Compliance**: Ensure compliance with regulatory requirements and professional standards governing pharmacy practice in PNG.
5. **Qualified Staff**: Employ trained and qualified staff for the dispensary.
6. **Facilities and Equipment**: Provide adequate facilities and equipment for medication storage and preparation.
7. **Policies and Procedures**: Establish policies and procedures to address medication errors, adverse drug reactions, and medication-related incidents.

By adhering to these requirements, the clinic's pharmacy dispensary can maintain the highest standards of pharmaceutical care, thereby contributing to improved patient outcomes and safety.

Pharmacy Storage Requirements

Pharmacy storage requirements are critical to ensure the safety, efficacy, and integrity of medications. These requirements encompass several key aspects:

1. **Temperature control**: Medications must be stored within specified temperature ranges to maintain their stability and potency. Refrigerated medications should be stored at recommended temperatures to prevent degradation, while ambient medications should be protected from extreme heat or cold.
2. **Humidity control:** Excessive humidity can compromise the quality of medications by promoting degradation, mould growth, or deterioration of packaging. Pharmacies should maintain appropriate humidity levels to protect medications from moisture-related damage.
3. **Light protection:** Some medications are light-sensitive and may degrade when exposed to sunlight or artificial light. Pharmacies should store light-sensitive medications in opaque containers or cabinets to protect them from light exposure.
4. **Security:** Medications should be stored securely to prevent unauthorized access, theft, or tampering. Pharmacies should have controlled access systems, such as locked cabinets or restricted areas, to safeguard medications from misuse or diversion.
5. **Organization and labelling:** Medications should be organized and labelled clearly to facilitate accurate inventory management, stock rotation, and retrieval. Each medication should be labelled with its name, strength, expiration date, and any special storage instructions.
6. **Shelf-life monitoring**: Pharmacies should regularly monitor the shelf life of medications and remove expired or deteriorated products from storage to prevent dispensing outdated or ineffective medications to patients.
7. **Separation of medications:** Certain medications may interact with each other or require specific storage conditions. Pharmacies should separate medications according to compatibility and storage requirements to prevent cross-contamination or degradation.
8. **Emergency preparedness:** Pharmacies should have contingency plans and backup systems in place to address emergencies, such as power outages, equipment failures, or natural disasters, to ensure the continuity of medication storage and availability.
9. **Regulatory compliance:** Pharmacies must comply with regulatory requirements and standards governing medication storage, including those outlined by the National Department of Health and other relevant authorities. This includes maintaining appropriate storage facilities, documentation of storage conditions, and adherence to Good Storage Practice guidelines.

By adhering to these pharmacy storage requirements, pharmacies can ensure the quality, safety, and efficacy of medications, ultimately promoting optimal patient care and outcomes.

4.5 Community Health Care Support Services

OTML has a significant social license obligation to provide healthcare to the community surrounding its operations, particularly in areas where its activities may impact the health and well-being of residents.

4.5.1 Integrated Community Health Care Support

Social License Obligations

Some key aspects of OTML's social license obligation for providing healthcare to the community include:

1. **Health infrastructure development:** OTML is expected to contribute to the development and maintenance of healthcare infrastructure, including hospitals, clinics, and medical facilities, to ensure access to essential healthcare services for local communities.
2. **Primary healthcare services:** OTML should support the provision of primary healthcare services, including preventive care, vaccinations, maternal and child health services, and treatment for common illnesses, to address the basic healthcare needs of the community.
3. **Specialized healthcare programs:** OTML may be required to support specialized healthcare programs targeting specific health issues prevalent in the community, such as malaria control, tuberculosis treatment, HIV/AIDS prevention and treatment, and maternal health initiatives.
4. **Emergency medical services:** OTML should ensure that emergency medical services, including ambulance services and emergency medical facilities, are available to respond to accidents, injuries, and medical emergencies within the community.
5. **Health education and promotion:** OTML should engage in health education and promotion activities to raise awareness about health issues, promote healthy behaviours, and empower community members to take control of their health and well-being.
6. **Environmental health and sanitation:** OTML should address environmental health and sanitation issues that may affect community health, including access to clean water, sanitation facilities, and measures to mitigate environmental pollution and contamination.
7. **Collaboration with local healthcare providers**: OTML should collaborate with local healthcare providers, government health agencies, non-governmental organizations, and other stakeholders to ensure coordinated and integrated healthcare delivery that meets the needs of the community.

8. **Community consultation and participation:** OTML should engage in meaningful consultation with the community to identify healthcare priorities, address concerns, and involve community members in the planning, implementation, and evaluation of healthcare programs and initiatives.

By fulfilling these social license obligations, OTML can contribute to improving the health and well-being of the community, building trust and goodwill, and maintaining its social license to operate in the region. To enhance community health care support, OMTL Health Services Team engage in health promotion awareness through monthly publications and utilise the OTML health desk. These publications feature informative articles and updates on various health topics, making the information accessible and engaging to the community to promote overall wellness.

The Health Inspector spearheads public health initiatives such as vaccination drives, sanitation improvements, and disease prevention campaigns. By coordinating these efforts and engaging community members, these initiatives aim to significantly enhance public health. Additionally, a dedicated STI Nurse is focuses on health promotion concerning sexually transmitted infections and related diseases. This role involves conducting educational sessions, workshops, and outreach programs to provide vital information on STI prevention, testing, and treatment. The STI Nurse will also offer resources and support to those at risk or affected by STIs. These actions collectively aim to improve health awareness, ensure safe waste management, and support public health efforts, ultimately enhancing community health outcomes.

4.5.2 Infectious & Communicable Diseases

In the workplace, managing and preventing diseases is vital to protect the health and safety of employees and prevent the spread of illness.

Infectious Diseases

Key infectious diseases that should be considered and managed in the workplace include:

1. **Respiratory infections:** Such as influenza (flu), COVID-19, and tuberculosis (TB), which can spread through respiratory droplets when an infected person coughs, sneezes, or talks. Implementing measures such as hand hygiene, respiratory etiquette, physical distancing, and vaccination can help prevent the transmission of respiratory infections in the workplace.
2. **Gastrointestinal infections:** Such as norovirus, salmonella, and E. coli, which can be transmitted through contaminated food, water, or surfaces. Ensuring food safety, promoting hand hygiene, and maintaining clean and sanitary facilities can reduce the risk of gastrointestinal infections among employees.
3. **Bloodborne infections:** Such as hepatitis B, hepatitis C, and HIV, which can be transmitted through contact with infected blood or bodily fluids. Implementing universal

precautions, providing personal protective equipment (PPE), and ensuring safe handling and disposal of sharps can prevent the transmission of bloodborne infections in healthcare and other high-risk settings.

4. **Vector-borne infections**: Such as Lyme disease, dengue fever, and Zika virus, which can be transmitted to humans through the bites of infected mosquitoes, ticks, or other vectors. Implementing measures to control vector populations, such as insect repellents, protective clothing, and environmental controls, can reduce the risk of vector-borne infections in outdoor or endemic areas.
5. **Skin infections:** Such as MRSA (methicillin-resistant Staphylococcus aureus) and cellulitis, which can be transmitted through direct contact with infected skin or contaminated surfaces. Promoting good hygiene practices, providing access to hand hygiene facilities, and encouraging prompt treatment of skin infections can prevent their spread in the workplace.
6. **Vaccine-preventable diseases:** Such as measles, mumps, rubella, and pertussis (whooping cough), which can be prevented through vaccination. Ensuring high vaccination coverage among employees, providing access to immunization services, and promoting vaccine awareness can protect against vaccine-preventable diseases in the workplace.

By considering and managing these infectious diseases in the workplace through appropriate prevention and control measures, employers can create a safer and healthier work environment for their employees, reduce absenteeism, and minimize the impact of infectious disease outbreaks on productivity and operations.

Communicable diseases

Papua New Guinea (PNG) faces a range of communicable diseases, some of which are endemic to the region and others that pose ongoing challenges. Some of the key communicable diseases in PNG include:

1. **Malaria:** Malaria is endemic throughout PNG, with transmission occurring year-round in many areas. Plasmodium falciparum and Plasmodium vivax are the most common malaria parasites in the country.
2. **Tuberculosis (TB):** PNG has one of the highest rates of tuberculosis (TB) in the Pacific region, with both drug-susceptible and drug-resistant strains of TB present. TB/HIV co-infection is also a significant concern.
3. **HIV/AIDS:** PNG has a generalized HIV epidemic, with high prevalence rates particularly in certain key populations, such as sex workers, men who have sex with men, and people who inject drugs.

4. **Dengue fever:** Dengue outbreaks occur periodically in PNG, particularly in urban and peri-urban areas. Aedes mosquitoes, primarily Aedes aegypti, transmit the dengue virus.
5. **Sexually transmitted infections (STIs):** STIs, including syphilis, gonorrhoea, and chlamydia, are prevalent in PNG, contributing to reproductive health issues and increasing the risk of HIV transmission.
6. **Pneumonia:** Pneumonia is a leading cause of morbidity and mortality, especially among children under five years of age, in Papua New Guinea.
7. **Vaccine-preventable diseases:** Despite efforts to improve vaccination coverage, vaccine-preventable diseases such as measles, rubella, pertussis, and hepatitis B still pose challenges in PNG.
8. **Intestinal parasitic infections:** Diseases such as amoebiasis, giardiasis, and soil-transmitted helminthiasis (e.g., roundworm, hookworm, and whipworm infections) are common in PNG, particularly in rural and remote areas with poor sanitation and limited access to clean water.
9. **Leptospirosis**: Leptospirosis is endemic in PNG, especially in rural and peri-urban areas where people come into contact with contaminated water and soil.

Efforts to control and prevent the outbreak or spread of communicable diseases in PNG include strengthening healthcare infrastructure, improving access to healthcare services, promoting health education and awareness, implementing vaccination programs, and enhancing surveillance and response capabilities. The OTML Health Services Team report weekly to national department of health, the department of national outbreak, on the status of the public health surveillance.

4.5.3 Non-Communicable Diseases

Non-communicable diseases (NCDs) represent a significant health challenge in Papua New Guinea (PNG). Effective community healthcare support services are essential in managing and mitigating the impact of these diseases. Key non-communicable diseases prevalent in PNG include:

1. **Hypertension**: Often referred to as high blood pressure, hypertension is a major risk factor for cardiovascular diseases, stroke, and renal failure. Community healthcare initiatives should focus on early detection, lifestyle modification education, and consistent monitoring.
2. **Diabetes:** This chronic condition, characterized by high blood sugar levels, can lead to severe complications if not managed properly. Community health services should emphasize regular screenings, diabetes education, and support for self-management practices.
3. **Ischemic Heart Disease**: Also known as coronary artery disease, this condition results from narrowed heart arteries leading to reduced blood flow to the heart. Preventive measures, early diagnosis, and management plans are crucial in community healthcare settings.

4. **Cancers**: Various forms of cancer pose a growing health threat in PNG. Early detection through screenings, public awareness campaigns, and access to treatment options are vital components of community health services.
5. **Strokes/Transient Ischemic Attacks (TIA):** Strokes and TIAs, often caused by interrupted blood supply to the brain, can lead to long-term disabilities. Community healthcare should include awareness programs, risk factor management, and rehabilitation services to support recovery and prevent recurrence.
6. **Obesity:** Rising rates of obesity contribute significantly to the prevalence of other NCDs such as diabetes and cardiovascular diseases. Community health initiatives should promote healthy eating, physical activity, and behavioural changes to combat obesity.

By focusing on these key non-communicable diseases, community healthcare support services can play a pivotal role in improving health outcomes and enhancing the quality of life for the people of PNG.

4.6 Tabubil Hospital Management Standard

4.6.1 Tabubil Hospital – Provision of Health Care

The Tabubil Hospital, operated by OTML contractors, provides comprehensive medical support and care to employees, contractors, and their families. The hospital is equipped with facilities and staffed by qualified healthcare professionals to deliver healthcare services.

The Tabubil Hospital's scope includes:

1. **Primary healthcare:** The hospital offers essential primary healthcare services, including consultations, vaccinations, maternal and child health services, and treatment for common illnesses and injuries.
2. **Emergency care:** Tabubil Hospital provides emergency medical services, including triage, stabilization, and treatment for accidents, injuries, and medical emergencies.
3. **Inpatient services:** The hospital has facilities for inpatient care, including medical and surgical wards, where patients can receive specialized treatment and observation for more serious conditions.
4. **Outpatient services:** The hospital offers outpatient services for follow-up care, medication management, and monitoring of chronic conditions, allowing patients to receive ongoing medical support without the need for hospitalization.
5. **Specialized care:** Tabubil Hospital may provide specialized medical services in areas such as obstetrics and gynaecology, paediatrics, internal medicine, surgery, and mental health, depending on the availability of healthcare professionals and resources.
6. **Diagnostic and laboratory services:** The hospital offers diagnostic services, including laboratory testing, imaging studies (X-rays, ultrasound), and other diagnostic procedures to aid in the diagnosis and treatment of medical conditions.
7. **Pharmacy services:** Tabubil Hospital has a pharmacy where patients can access prescribed medications and receive medication counselling and advice from pharmacists.
8. **Community health programs:** The hospital may be involved in community health programs and initiatives, including health education and promotion, disease prevention campaigns, and outreach services to remote areas.

Overall, Tabubil Hospital plays a vital role in providing accessible and quality healthcare services to the community, contributing to the health and well-being of residents in the region.

4.6.2 Hospital Contract Execution

OTML will take several actions to ensure the Tabubil Hospital is adequately managed and that the health services provided align with the contract agreement. These actions may include:

1. **Contractual obligations:** OTML will review and understand the terms and conditions outlined in the contract agreement between the company and the relevant stakeholders, including any specific requirements related to managing the Tabubil Hospital and delivering healthcare services.
2. **Compliance with regulations:** OTML will ensure that the operation and management of the Tabubil Hospital comply with all relevant laws, regulations, and standards governing healthcare facilities and services in Papua New Guinea (PNG).
3. **Appointment of qualified staff:** OTML will recruit and appoint qualified healthcare professionals, including medical doctors, nurses, specialists, and support staff, to work at the Tabubil Hospital. These staff members will be adequately trained and licensed to provide quality healthcare services.
4. **Resource allocation:** OTML will allocate sufficient financial, human, and logistical resources to support the operation and management of the Tabubil Hospital, including funding for medical equipment, supplies, and infrastructure maintenance.
5. **Quality assurance:** OTML will implement quality assurance measures to monitor and evaluate the performance of the Tabubil Hospital, including patient satisfaction surveys, clinical audits, and regular assessments of healthcare outcomes and service delivery standards.
6. **Continuous improvement:** OTML will identify areas for improvement and take proactive steps to enhance the quality and efficiency of healthcare services provided at the Tabubil Hospital. This may involve implementing best practices, adopting new technologies, and addressing feedback from patients and stakeholders.
7. **Stakeholder engagement:** OTML will engage with relevant stakeholders, including community members, government authorities, healthcare professionals, and non-governmental organizations, to solicit input, address concerns, and foster collaboration in managing the Tabubil Hospital and delivering healthcare services.
8. **Reporting and accountability**: OTML will establish mechanisms for reporting on the performance and outcomes of the Tabubil Hospital, including regular updates to stakeholders, transparent communication about challenges and achievements, and accountability for meeting contractual obligations.

By taking these actions, OTML can ensure that the Tabubil Hospital is effectively managed and that the health services provided are aligned with the contract agreement, ultimately benefiting the local community, and contributing to improved health outcomes in the region.

4.6.3 Contractor Management

Contractor Management Requirements for OTML Hospital Health Facility Management Contractors include:

1. **Compliance with Regulations:** All contractors engaged by OTML for hospital health facility management must comply with relevant local, national, and international regulations governing healthcare facilities.
2. **Qualifications and Licensing:** Contractors must possess appropriate qualifications, certifications, and licenses relevant to their area of expertise and comply with any mandatory professional standards.
3. **Insurance Coverage:** Contractors must maintain adequate insurance coverage, including liability insurance, to protect against any unforeseen incidents or claims that may arise during their engagement with OTML.
4. **Health and Safety Standards:** Contractors must adhere to strict health and safety protocols to ensure the well-being of staff, patients, and visitors within the hospital premises. This includes compliance with occupational health and safety regulations, infection control measures, and emergency procedures.
5. **Quality Assurance**: Contractors are expected to deliver services of the highest quality and contribute to the continuous improvement of hospital operations. This may involve participating in quality assurance programs, conducting regular performance reviews, and implementing best practices in facility management.
6. **Communication and Collaboration**: Contractors must maintain open and effective communication channels with OTML staff, other contractors, and relevant stakeholders to facilitate smooth coordination and efficient delivery of services. Collaboration with internal teams and external partners is essential for achieving operational excellence and meeting the needs of patients.
7. **Ethical Conduct**: Contractors are required to uphold ethical standards and integrity in all their interactions and activities within the hospital environment. This includes maintaining confidentiality, respecting patient rights, and avoiding conflicts of interest.
8. **Documentation and Reporting**: Contractors must keep accurate records of their work activities, including maintenance schedules, service reports, and incident logs. Timely reporting of any issues or concerns is essential for prompt resolution and mitigation of risks.
9. **Performance Evaluation**: OTML will regularly assess the performance of contractors based on predefined key performance indicators (KPIs) and contractual obligations.

Feedback and performance reviews will be conducted to ensure alignment with expectations and identify areas for improvement.

10. **Contractual Compliance:** Contractors must adhere to the terms and conditions outlined in their contracts with OTML, including service level agreements, timelines, and payment terms. Any deviations or breaches of contract will be addressed through appropriate channels in accordance with contractual agreements and legal requirements.

By adhering to these contractor management requirements, OTML aims to maintain high standards of facility management services within its hospital. Safeguarding the health and safety of all stakeholders and promoting the delivery of quality patient care.

4.7 Injury & Medical Emergency Response

4.7.1 Injury & Illness Management

Managing an injury at Ok Tedi Mining involves swift and decisive action to address the immediate needs of the affected worker. Our priority upon occurrence, is to provide immediate first aid and medical attention to ensure the individual's safety and well-being. Concurrently, we secure the area to prevent further harm and promptly report the incident to the designated supervisor or safety officer.

Following this, a thorough investigation is conducted to identify the root causes, allowing us to implement corrective measures and prevent similar incidents in the future. Communication with the injured worker and relevant stakeholders is maintained throughout, ensuring support and assistance are provided as needed, including access to medical treatment and rehabilitation services. We closely monitor the worker's recovery progress and facilitate their return to work when medically cleared, while continually reviewing and updating safety procedures and training programs to enhance workplace safety.

In contrast, managing an illness at Ok Tedi Mining focuses on preventive measures and early detection to safeguard the health and well-being of our workforce. We implement comprehensive measures to prevent the onset of work-related illnesses, including exposure controls, personal protective equipment (PPE), and health monitoring programs. Our initiatives also include promoting employee health through wellness programs, health screenings, and ergonomic assessments.

Early detection is encouraged, and workers are provided access to medical services and occupational health professionals for timely diagnosis and treatment. Control measures are in place to minimise exposure to hazardous substances or conditions that may contribute to occupational illnesses, ensuring compliance with relevant health standards and exposure limits. We facilitate appropriate medical management for diagnosed cases, including access to specialist healthcare providers and support services. Additionally, accurate recordkeeping

and reporting of work-related illnesses are maintained, fulfilling our commitment to regulatory compliance and the well-being of our employees.

Incident management versus injury management (IMT and incident response) delineates the levels and different work parties involved in leading emergency preparedness and response efforts. This includes coordinating crisis management plans, communication strategies, and resource mobilization to effectively address emergencies, disasters, and public health crises.

4.7.2 Emergency Preparedness and Response

In addition to injury and illness management, OTML places significant emphasis on emergency preparedness and response. As part of our comprehensive approach to workplace health and safety, the health services team plays a crucial role in planning and executing emergency response protocols to address medical emergencies promptly and effectively.

Emergency Preparedness

To ensure comprehensive readiness for health emergencies which could take place in various locations and environments, given the diverse nature of OTML work sites and work activities. Considerations need to be given to emergency scenarios that could take plane on an OTML work site, at an OTML camp, on the water, on the road during the transport of goods etc. Therefore, it is information that OTML's emergency preparedness procedure includes the following key components:

- **Drills:** Regularly conducted drills are essential to prepare all staff for various emergency scenarios. These drills simulate real-life situations, allowing employees to practice their roles and responsibilities, identify potential gaps in the response plan, and improve coordination among different teams. The health services team must actively engage in emergency drills and exercises to evaluate response procedures and enhance readiness for real-life situations. Through ongoing training and simulation exercises, they continuously refine their skills and adapt to evolving challenges, ensuring a coordinated and efficient response during emergencies.
- **Site Emergency Response Team (ERT) (APD):** The Site Emergency Response Team (ERT), also known as the Accident Prevention Division (APD), is responsible for the immediate response to emergencies on-site. This team is composed of trained personnel who are equipped to handle initial emergency measures, control the situation, and prevent further harm until specialized help arrives.
- **Ambulance & Paramedic Services**: On-site ambulance services are crucial for providing rapid medical response to emergencies. Paramedics are trained to deliver critical care during transportation, ensuring that patients receive immediate medical attention en route to more comprehensive medical facilities.

- **Clinics Support:** On-site clinics play a vital role in the initial assessment and stabilization of patients. These clinics are staffed with qualified medical professionals who provide immediate care, manage minor injuries, and prepare patients for transfer to higher-level medical facilities if needed.
- **Hospital:** Partnerships with local hospitals ensure that more serious medical conditions are managed by specialists. Hospitals provide advanced medical care, including surgeries, specialized treatments, and extended care for severe injuries or illnesses that cannot be treated on-site.
- **Process to Medivac if Needed**: In cases where on-site or local medical facilities are insufficient, a medivac (medical evacuation) process is in place. This involves the coordination of air or ground transport to move patients to hospitals with the necessary capabilities. The process includes assessment by medical professionals, securing appropriate transport, and ensuring continuity of care during the transfer.
- **Stakeholder Engagement**: Collaboration with other departments and stakeholders is a key aspect of our emergency preparedness efforts. The health services team works closely with the safety team, emergency response coordinators, and local authorities to develop and implement comprehensive emergency response plans tailored to the unique risks and challenges of OTML operations.

By prioritizing emergency preparedness and response, with a dedicated focus on the health service team's role, OTML reinforces its commitment to protecting the health, safety, and well-being of its workforce. This multi-layered approach to emergency preparedness ensures that OTML can effectively manage health emergencies, providing timely and efficient care to all individuals involved.

Medical Emergency Response

In the event of an emergency, whether it involves an injury, illness, or other health-related incident within an OTML operational site, or outside of an OTML operational site, the health services team is trained and equipped to respond rapidly. This includes administering first aid and emergency medical care, coordinating with external medical services if necessary, and ensuring the safety and well-being of all individuals involved.

If further care is required, the process for emergency medical evacuation is required to be activated. This includes assessing the patient's condition, stabilising them, and preparing them for transport. For critical cases, coordinate with emergency services to arrange for a medivac helicopter. The chopper is to land at the designated helipad, and the patient is carefully transferred and flown to the nearest hospital for advanced medical care. This process ensures timely and efficient medical response.
Emergency preparedness and response ensures that healthcare facilities are equipped to handle emergencies such as natural disasters, mass casualties, and infectious disease

outbreaks. This includes protocols for evacuation, triage, and coordination with external emergency services.

4.7.3 Medevac Processes

OTML Employees

- **Local Medevac (Western Province):** For urgent medical situations requiring immediate attention within the local areas of the Western Province, local medevac services are available. These services ensure rapid transportation to the nearest healthcare facility equipped to handle the specific medical needs.
- **Domestic Medevac (Tabubil to Port Moresby):** When specialized medical care or advanced treatment is required beyond the capabilities of local healthcare facilities, domestic medevac services are utilized. This involves transporting patients from Tabubil to Port Moresby, where they can access higher-level medical services.
- **International Medevac (PNG to overseas countries):** In cases where the necessary medical treatment is not available within Papua New Guinea, international medevac services are arranged. This process facilitates the transfer of patients from PNG to overseas countries that offer the required medical expertise and facilities.

Business Partners

- **Local Medevac (Kiunga, Bige, Tabubil):** Business partners operating within the local regions of Kiunga, Bige, and Tabubil have access to local medevac services for emergencies. This ensures prompt medical attention and transport to nearby healthcare facilities.
- **Domestic Medevac (Tabubil to Port Moresby):** For medical cases that necessitate advanced care available only in larger medical centres, domestic medevac services are provided. Patients are transported from Tabubil to Port Moresby for comprehensive medical treatment.
- **International Medevac (PNG to overseas countries):** When critical medical needs surpass the resources available within Papua New Guinea, international medevac services are employed. This allows for the transfer of patients from PNG to specialized medical facilities overseas.

Community

- **Local Medevac (Kiunga, Bige, Tabubil):** Community members in Kiunga, Bige, and Tabubil have access to local medevac services for immediate medical emergencies. These services ensure swift transport to the closest healthcare facilities for urgent care.
- **Domestic Medevac (Tabubil to Port Moresby):** For community members requiring specialized medical treatment not available locally, domestic medevac services are available. Patients are transported from Tabubil to Port Moresby to receive necessary medical care.

- **International Medevac (PNG to overseas countries):** In instances where advanced medical treatment is needed beyond what is available in Papua New Guinea, international medevac services are utilized. This ensures community members can access necessary healthcare services in overseas countries.

4.7.4 Medical Repatriation

OTML Employees

Medical repatriation for OTML employees ensures that individuals who require long-term medical care or who wish to recover closer to their families can be safely transported back to their home country or another preferred location. This service is crucial for employees who have experienced serious medical incidents while working abroad. The process includes coordination with healthcare providers to ensure continuous medical supervision and care during the repatriation journey, utilizing air or ground transportation as appropriate.

In the unfortunate event that an OTML employee passes away, the medical repatriation process includes the respectful and dignified transportation of the deceased's body to their home country or another designated location. This involves coordination with local and international authorities, adherence to legal and health regulations, and support for the bereaved family throughout the process.

Business Partners

Business partners affiliated with OTML also have access to medical repatriation services. This provision is essential for ensuring that partners working on OTML projects, who experience severe health issues, can return to their home country or chosen location for ongoing medical treatment and recovery. The repatriation process involves thorough medical assessments, the arrangement of appropriate medical escorts, and ensuring that all necessary medical equipment is available during transport to maintain the health and safety of the patient.

If a business partner unfortunately passes away, the repatriation services extend to the transportation of the deceased's body. This service ensures that the remains are handled with care and respect, meeting all regulatory and legal requirements, and providing necessary support to the deceased's family.

Community

The community members around OTML operations benefit from medical repatriation services in situations where extended medical care is necessary, and such services are not available locally. This service allows community members to be transported to a location where they can receive the required care and support from family and community networks. Medical repatriation for community members is carefully planned to ensure that patients

receive consistent medical attention throughout the journey, with a focus on their comfort and well-being.

In the event of a community member's passing, medical repatriation includes the respectful transportation of the deceased's body to their home or another chosen location. This process is managed with sensitivity and respect, ensuring compliance with all relevant regulations and providing support to the bereaved family during this difficult time.

Medical Equipment

To ensure comprehensive and effective medical response and treatment at a mine site, the following medical equipment is essential:

Medical Focus	Medical Equipment Requirements
Basic Life Support (BLS) Equipment	1. **Automated External Defibrillators (AEDs):** For immediate response to cardiac arrest. 2. **Oxygen Supply Systems:** Including portable oxygen tanks and masks for respiratory support. 3. **Bag Valve Masks (BVMs):** For manual ventilation of patients who are not breathing adequately. 4. **Airway Management Tools:** Such as oropharyngeal and nasopharyngeal airways, laryngoscopes, and endotracheal tubes.
Trauma Care Equipment	1. **First Aid Kits:** Stocked with bandages, dressings, antiseptics, and splints. 2. **Spine Boards and Cervical Collars:** For immobilizing and transporting patients with potential spinal injuries. 3. **Trauma Bags:** Containing items such as tourniquets, haemostatic dressings, and burn dressings. 4. **Fracture Management Kits:** Including splints and casting materials.
Monitoring & Diagnostic Equipment	1. **Vital Signs Monitors:** For continuous monitoring of heart rate, blood pressure, oxygen saturation, and temperature. 2. **Portable ECG Machines:** For assessing cardiac conditions on-site. 3. **Glucometers:** For monitoring blood glucose levels in diabetic patients or those with altered consciousness. 4. **Portable Ultrasound Devices:** For rapid, non-invasive internal assessments.
Medical Supplies & Pharmaceuticals	1. **IV Supplies:** Including cannulas, IV fluids, and administration sets for rehydration and medication delivery. 2. **Emergency Medications:** Such as epinephrine, antihistamines, analgesics, and antibiotics.

Medical Focus	Medical Equipment Requirements
	3. **Pain Management Supplies:** Including local anaesthetics and analgesic medications.
Infection Control Supplies	1. **Personal Protective Equipment (PPE):** Such as gloves, masks, gowns, and eye protection. 2. **Disinfectants and Sterilization Supplies:** For maintaining hygiene and preventing the spread of infection.
Specialized Rescue Equipment	1. **Rescue Stretchers:** Designed for difficult terrains often found in mining environments. 2. **Rope and Rigging Gear:** For safe patient extraction from confined spaces or elevated areas.
Communication & Coordination Tools	1. **Two-Way Radios:** For efficient communication between responders, site management, and external emergency services. 2. **Satellite Phones:** Ensuring reliable communication in remote areas where standard cell service may be unavailable.
Transportation Equipment	1. **Ambulances:** Equipped for on-site and off-site transport, including advanced life support capabilities. 2. **Medivac Equipment:** Coordination with air transport services for rapid evacuation when needed.

By maintaining this comprehensive array of medical equipment, OL can ensure effective response to a wide range of medical emergencies, thereby enhancing the safety and well-being of all personnel on-site.

4.7.5 Rehabilitation & Return to Work (RTW)

OTML prioritizes a comprehensive rehabilitation and return-to-work process to support employees following workplace injuries or illnesses. Our approach encompasses the following key elements:

- Early Intervention and Assessment:
  - Prompt identification and assessment of employees' rehabilitation needs following an injury or illness.
  - Early intervention to address physical, psychological, and social factors affecting recovery.
- Individualized Rehabilitation Plans:
  - Development of individualized rehabilitation plans tailored to the specific needs and capabilities of each employee.
  - Collaboration between healthcare professionals, supervisors, and employees to set realistic goals and milestones for rehabilitation.

- Multidisciplinary Support Services:
  - Access to a range of multidisciplinary support services, including medical care, physiotherapy, counselling, and vocational rehabilitation.
  - Coordination of services to provide holistic support throughout the rehabilitation process.
- Progress Monitoring and Adjustments:
  - Ongoing monitoring of employees' progress in rehabilitation, with regular reassessment and adjustments to the rehabilitation plan as needed.
  - Open communication and collaboration between all stakeholders to address challenges and optimize outcomes.
- Gradual Return-to-Work Program:
  - Implementation of a gradual return-to-work program, allowing employees to transition back to their pre-injury or pre-illness duties in a phased and supportive manner.
  - Provision of accommodations or modifications to the workplace as necessary to facilitate successful return to work.
- Employee Education and Empowerment:
  - Provision of education and resources to empower employees to take an active role in their rehabilitation and return-to-work process.
  - Promotion of self-management strategies and healthy lifestyle behaviours to support long-term well-being.
- Compliance with Legal and Ethical Standards:
  - Adherence to relevant legal and ethical standards governing rehabilitation and return-to-work practices, including confidentiality, non-discrimination, and respect for employees' rights and preferences.

By implementing a robust rehabilitation and return-to-work process, OTML demonstrates its commitment to supporting employees' health, well-being, and successful reintegration into the workplace following injury or illness.

4.7.6 After Incident Response

Trauma Informed Care

In response to incidents, OTML emphasizes the critical importance of trauma-informed care to support individuals impacted by such events. Our approach is designed to understand and address the emotional and psychological effects on employees, acknowledging that traumatic experiences can have enduring impacts on mental health.

Trauma-informed care is seamlessly integrated into our post-incident support protocols, ensuring that those affected receive compassionate and sensitive assistance tailored to their specific needs. This method focuses on creating a safe and supportive environment, fostering trust, empowerment, and collaboration in the healing process. Our health services team, well-

versed in trauma-informed care principles, offers confidential support and resources to help employees navigate the aftermath of incidents. This support may include access to counselling services, peer support groups, and educational materials on coping strategies and resilience-building techniques.

OTML is committed to promoting a culture of open communication and reducing the stigma surrounding mental health issues, encouraging employees to seek support without fear of judgment or reprisal. By prioritizing trauma-informed care, we demonstrate our dedication to the holistic well-being of our workforce, supporting resilience and recovery following workplace incidents.

4.7.7 Medical Investigations

Following a major incident at the workplace, health services – HR, Clinical Chiefs, third party specialists, investigators must follow and adhere to these minimum standard requirements to ensure a comprehensive and effective response to major incidents in medical facilities, fostering a safer and more resilient healthcare environment.

Process for Conducting a Medical Investigation

1. **Identification of Need**
   - Recognize symptoms, incidents, or patterns indicating a potential medical issue.
   - Receive reports from employees, supervisors, or health and safety personnel regarding health concerns.
2. **Initial Assessment**
   - Gather relevant information about the reported medical issue, including:
   - Symptoms observed or reported by the individual.
   - Duration and severity of symptoms.
   - Any potential triggers or environmental factors.
   - Determine the urgency of the investigation based on the severity of the condition and potential risks to health and safety.
3. **Engage Qualified Personnel**
   - Assign qualified medical professionals to conduct the investigation.
   - Ensure the team has the necessary expertise and resources to assess the medical issue thoroughly.
4. **Collect Medical History and Documentation**
   - Obtain the medical history of the individual(s) affected, including:
   - Previous medical conditions.
   - Medications and treatments received.
   - Relevant personal and family medical history.

- Review any available medical records, test results, or incident reports related to the issue.

5. **Physical Examination**
   - Perform a comprehensive physical examination of the individual(s) involved, focusing on:
     - Vital signs (e.g., heart rate, blood pressure, temperature).
     - Symptoms reported during the initial assessment.
     - Any visible signs of injury or illness.
6. **Diagnostic Testing**
   - Order appropriate diagnostic tests based on the nature of the medical issue, which may include:
     - Blood tests.
     - Imaging studies (e.g., X-rays, MRI, CT scans).
     - Biopsies or other specialized tests.
   - Ensure that testing procedures adhere to relevant safety and ethical guidelines.
7. **Analysis of Findings**
   - Review the results of the medical history, physical examination, and diagnostic tests.
   - Assess the significance of findings in relation to the reported symptoms and overall health status.
   - Identify any underlying medical conditions or contributing factors that may have contributed to the issue.
8. **Documentation and Reporting**
   - Document all findings, including:
     - Summary of the medical history and examination.
     - Results of diagnostic tests and analysis.
     - Recommendations for further evaluation or treatment.
   - Generate a comprehensive report outlining the investigation process and conclusions reached.
9. **Communication and Follow-Up**
   - Communicate findings and recommendations to relevant stakeholders, including:
     - Management personnel.
     - Occupational health and safety officers.
     - Employees directly affected by the investigation.
   - Provide guidance on necessary follow-up actions, such as:
     - Referrals to specialists for further evaluation or treatment.
     - Implementation of preventive measures to mitigate similar incidents in the future.
10. **Continuous Improvement**
    - Evaluate the effectiveness of the investigation process and outcomes.

- Identify opportunities for improvement in medical response protocols, training programs, or workplace health initiatives.
- Implement changes as necessary to enhance the efficiency and effectiveness of future medical investigations.

By following this structured process, organizations can ensure thorough and systematic investigation of medical issues, leading to accurate diagnoses, appropriate treatment, and improved health outcomes for employees.

Process for Conducting a Medical Investigation Following a Fatality

1. **Immediate Response**
   - Upon discovery of a fatality, initiate emergency procedures to secure the scene and ensure the safety of personnel.
   - Notify appropriate authorities, including emergency services and relevant regulatory agencies.
2. **Designation of Investigation Team**
   - Assign a dedicated investigation team consisting of qualified medical professionals, forensic experts, and health and safety personnel.
   - Ensure the team has the necessary expertise and resources to conduct a thorough investigation.
3. **Scene Examination**
   - Conduct a comprehensive examination of the scene of the incident, preserving evidence and documenting relevant findings.
   - Identify and document any potential hazards or contributing factors that may have led to the fatality.
4. **Post-Mortem Examination**
   - Perform a detailed post-mortem examination of the deceased individual, including:
     - External examination to document injuries and physical findings.
     - Internal examination to assess organ systems and identify potential causes of death.
     - Toxicological analysis to detect the presence of drugs, toxins, or other substances.
5. **Medical History Review**
   - Obtain and review the medical history of the deceased individual, including:
     - Previous medical conditions, treatments, and surgeries.
     - Medications and allergies.
     - Relevant personal and family medical history.
6. **Witness Interviews**

- Interview witnesses, coworkers, and individuals present at the time of the incident to gather information about the events leading up to the fatality.
- Document statements and testimonies to reconstruct the sequence of events.

7. **Review of Documentation**
   - Review any available documentation related to the incident, including:
     - Incident reports.
     - Work schedules and assignments.
     - Training records.
     - Safety protocols and procedures.
8. **Collaboration with Authorities**
   - Coordinate with law enforcement agencies, medical examiners, and regulatory authorities involved in the investigation.
   - Share relevant findings and collaborate on the analysis of evidence to determine the cause and circumstances of death.
9. **Analysis and Reporting**
   - Analyse all available evidence, including medical findings, witness statements, and scene examination reports.
   - Prepare a comprehensive report documenting the findings of the investigation, including:
     - Cause and manner of death.
     - Contributing factors and root causes.
     - Recommendations for corrective actions and preventive measures.
10. **Communication with Stakeholders**
    - Communicate findings and recommendations to relevant stakeholders, including:
      - Family members of the deceased.
      - Management personnel.
      - Occupational health and safety officers.
    - Provide support and assistance to affected individuals and facilitate access to counselling or other resources.
11. **Follow-Up and Monitoring**
    - Monitor the implementation of corrective actions and preventive measures recommended as a result of the investigation.
    - Conduct periodic reviews and assessments to evaluate the effectiveness of interventions and identify opportunities for improvement.

By following this comprehensive process, organizations can conduct thorough and impartial investigations into fatalities, ensuring that all relevant factors are considered, and appropriate actions are taken to prevent similar incidents in the future.

5 Consultation and Communication

Consultation and good communication are central to the development and implementation of an effective health management plan, it enables:

- Early and on-going consultation
- Making a firm policy commitment to effective health risk management
- Establishment of roles and responsibilities
- Risk identification, assessment, and control
- Development of assessment and monitoring procedures
- Training and supervision
- Development of a strategy to implement the plan
- Implementation of the plan
- On-going performance monitoring and evaluation of the risk management process
- Regular review and resultant modification of the plan; and
- Integration of the plan with the overall Health and Safety Management Plan.

OTML establish clear guidelines for engaging stakeholders, communicating health-related information, and fostering collaboration to promote the health and well-being of employees and surrounding communities. Key components of these protocols include:

- **Stakeholder engagement:** Engaging stakeholders, including employees, contractors, local communities, regulatory authorities, and healthcare professionals, in meaningful consultations to identify health concerns, gather input, and address health-related issues proactively.
- **Communication channels:** Establishing effective communication channels, such as meetings, forums, newsletters, websites, and social media platforms, to disseminate health-related information, updates, and initiatives to relevant stakeholders in a timely and accessible manner.
- **Two-way communication:** Facilitating open, transparent, and two-way communication between management and stakeholders to encourage feedback, address concerns, and promote dialogue on health-related matters. This may involve establishing feedback mechanisms, suggestion boxes, or anonymous reporting systems to facilitate communication.
- **Health education and awareness:** Providing health education and awareness programs to employees, contractors, and communities to promote health literacy, raise awareness of occupational health risks, and empower individuals to make informed decisions about their health and safety.
- **Training and capacity building:** Providing training and capacity-building programs to employees, contractors, and community members on health-related topics, such as first

aid, emergency response, disease prevention, and occupational health and safety practices.

- **Cultural sensitivity:** Recognizing and respecting cultural diversity and local customs when communicating health-related information to diverse stakeholder groups, ensuring that messages are culturally appropriate, inclusive, and accessible to all.
- **Emergency communication:** Establishing protocols for emergency communication and notification procedures to alert stakeholders in the event of health emergencies, outbreaks, or other critical incidents, and coordinate response efforts effectively.
- **Compliance and accountability:** Ensuring compliance with relevant regulations, standards, and policies governing health communication and consultation processes, and holding stakeholders accountable for their roles and responsibilities in promoting health and safety.

Communication Mechanisms

By implementing robust consultation and communication protocols, OTML can effectively engage stakeholders, build trust, and foster collaboration to address health-related challenges, mitigate risks, and promote a culture of health and safety throughout the organization and surrounding communities. These different communication touch points include:

Internal Communication:

- **On boarding Gap Health Services Support:** Providing support services to address any health-related gaps identified during on boarding processes.
- **Inductions**: Health-related inductions for new employees to ensure awareness of health protocols and procedures.
- **Health Talks:** Conducting health talks and awareness sessions to inform employees about relevant health topics and promote a culture of well-being.
- **Monthly Team Updates**: Regular updates on health-related matters shared with teams via the HELP desk through email, pre-start talks, and awareness sessions.
- **Health Reports and Concerns:** Regular dissemination of health reports and addressing health concerns through various channels.
- **ESG Performance Report:** Utilization of a community report system for shared communication on health matters among employees.

Clinical Communication:

- **Pre-start Talks:** Incorporating health discussions into pre-start talks to reinforce health protocols and provide updates on health initiatives.
- **Weekly Team Meetings:** Regular meetings with the health team to discuss progress reports, team performance, and any emerging health issues.
- **Progress Reports:** Reviewing progress reports to assess the effectiveness of health interventions and identify areas for improvement.

By implementing these communication protocols, the mining company ensures that health-related information is effectively disseminated, teams are informed and engaged, and clinical discussions contribute to continuous improvement in health standards and practices.

6 Health Campaigns

OTML will continue its support through education and awareness campaigns, focusing on holistic health and well-being. These health campaigns feature proactive initiatives to promote employee wellness and cultivate a healthy workplace culture. Typically, the campaigns involve targeted efforts to raise awareness, educate, and engage employees in health-related topics and behaviours. Key components of health campaigns may include:

- **Health awareness campaigns**: Initiatives focused on increasing awareness of specific health issues, such as mental health, nutrition, physical activity, or substance abuse, through educational materials, workshops, and promotional activities.
- **Preventive health campaigns:** Programs aimed at encouraging employees to adopt healthy behaviours and lifestyles to prevent chronic diseases, injuries, and occupational health hazards. This may include campaigns promoting regular exercise, healthy eating habits, smoking cessation, and stress management techniques.
- **Safety campaigns:** Campaigns focused on promoting workplace safety and injury prevention, highlighting the importance of following safety protocols, using personal protective equipment (PPE), and reporting hazards or near-miss incidents.
- **Disease prevention campaigns**: Initiatives aimed at preventing the spread of communicable diseases in the workplace, such as influenza, by promoting vaccination, hand hygiene, respiratory etiquette, and other infection control measures.
- **Health screening campaigns:** Programs offering on-site health screenings and assessments to employees, such as blood pressure checks, cholesterol screenings, and skin cancer screenings, to identify and address potential health risks early.
- **Mental health campaigns:** Campaigns focused on raising awareness of mental health issues, reducing stigma, and promoting mental well-being in the workplace through education, training, and access to mental health resources and support services.
- **Environmental health campaigns:** Initiatives aimed at promoting environmental health and sustainability practices in the workplace, such as waste reduction, recycling programs, and initiatives to reduce exposure to environmental hazards.
- **Employee Health & Wellbeing engagement campaigns:** Campaigns designed to engage and motivate employees to participate in health-related activities and initiatives, fostering a sense of ownership and accountability for their health and well-being.
- **Fitness campaigns :** Campaigns designed to encourage and motivate employees to participate in comprehensive fitness programs and initiatives.

Overall, health campaigns play a vital role in promoting a culture of health and safety within the mining company, empowering employees to make informed decisions about their health and contributing to a healthier, more productive workforce.

7 Record Management

At OTML, an Integrated Management System (IMS) provides a foundational framework that integrates various management processes essential to our operations. This unified structure combines quality, health and safety, environmental, and risk management systems, promoting efficiency and consistency across the organization.

By centralizing these systems, the IMS optimizes resource utilization, eliminates duplication of efforts, and streamlines operations across departments. It allows for a comprehensive approach to management by recognizing the interconnected nature of different operational aspects. This enhances our ability to identify, assess, and manage risks holistically, ensuring regulatory compliance and reducing incidents and non-conformities. Through continuous monitoring and evaluation, the IMS supports ongoing improvement, driving innovation and resilience in our operations. Additionally, it fosters effective stakeholder engagement by promoting transparency and accountability, reinforcing trust and credibility with employees, communities, regulators, and investors. Ultimately, the IMS demonstrates our commitment to operational excellence, sustainability, and stakeholder satisfaction at OTML.

Health Services Records

Record management for OTML Clinics and the OTML Hospital involves the systematic and efficient management of patient records to ensure confidentiality, accuracy, accessibility, and security. Key components of record management in healthcare clinics include:

- **Electronic Health Records (EHRs):** Implementing electronic systems for capturing, storing, and managing patient health information in a secure and centralized database. EHRs facilitate comprehensive and real-time access to patient records by authorized healthcare providers, enabling continuity of care and informed decision-making.
- **Standardized documentation**: Adopting standardized formats and terminology for documenting patient information, assessments, diagnoses, treatments, and outcomes to ensure consistency, interoperability, and quality of care across healthcare settings.
- **Privacy and confidentiality:** Implementing robust policies, procedures, and security measures to safeguard patient privacy and confidentiality in accordance with relevant regulations, such as the Health Insurance Portability and Accountability Act (HIPAA) in the United States or the General Data Protection Regulation (GDPR) in the European Union. This includes restricting access to patient records to authorized personnel, encrypting sensitive data, and obtaining patient consent for the use and disclosure of their health information.

- **Data accuracy and integrity**: Ensuring the accuracy, completeness, and integrity of patient records through regular validation, verification, and quality assurance processes. This includes verifying patient demographics, updating records with current information, and reconciling discrepancies to maintain data accuracy over time.
- **Record retention and disposal:** Establishing policies and procedures for the retention and disposal of patient records in compliance with legal, regulatory, and accreditation requirements. This includes defining retention periods for different types of records, securely archiving inactive records, and securely disposing of expired records to protect patient privacy and reduce legal risks.
- **Access controls and audit trails:** Implementing access controls and audit trails to monitor and track access to patient records, including user authentication, role-based permissions, and logging of access activities. This helps prevent unauthorized access, detect security breaches, and ensure accountability for handling patient information.
- **Disaster recovery and business continuity**: Implementing backup and disaster recovery plans to ensure the availability and integrity of patient records in the event of system failures, natural disasters, or other emergencies. This includes regular backups, offsite storage of backup data, and contingency plans for restoring services and accessing patient records during disruptions.

By adhering to these principles and practices, healthcare clinics can effectively manage patient records in accordance with international best practice standards, ensuring the confidentiality, integrity, and accessibility of patient information while promoting quality of care and patient safety.

To ensure effective record management within OTML. The organization has developed, implemented, and maintained a healthcare management system which encompasses all necessary processes and their interactions as outlined in this document for activities managed by the health services department. Thereby establishing and demonstrating evident of appropriate systems, procedures, and documented information as specified herein and demonstrate evidence of their implementation. To ensure effective management of documented information, the organization will address the following activities, as relevant:

- Distribution, access, retrieval, and use of documents.
- Storage and preservation, with a focus on maintaining legibility.
- Control of changes, including version control procedures.
- Periodic review and updating as needed to ensure accuracy.
- Retention and disposal procedures.

Additionally, any documented information from external sources deemed necessary for quality management system planning and operation in healthcare will be identified and appropriately controlled by the organization.

8 Training & Competencies

To ensure personnel are adequately trained, certified, registered, competent, and also knowledgeable about OTML health requirements, to effectively oversee and promote safe work practices. OTML is required to maintain accurate training record and provide high-quality healthcare services to its workforce and contribute to the health and well-being of the surrounding communities in Papua New Guinea.

Examples of essential training and competencies for OTML health care professionals and allied care workers:

- Basic life support
- Advanced life support
- Continued Medical Education
- Infection, Prevention and Control
- Mental Health First Aid training
- Fire safety training
- Training on safeguarding adults at risk and safeguarding children

Core health and safety awareness and training typically include:

- Awareness of the local health and safety policy
- Awareness of the control of substances hazardous to health (COSHH)
- When and how to report injuries, diseases, and dangerous occurrences (RIDDOR)
- Fire safety awareness training
- Manual handling training
- Basic risk assessment training
- Annual updates in essential areas of fire safety and manual handling

Mandatory health and safety awareness and training generally encompass:

- Complaints handling
- Conflict resolution (managing violence and aggression)
- Consent
- Display and screen equipment
- Incident reporting
- Hand hygiene
- Hazardous substances
- Infection prevention and control
- Information governance
- Mental capacity and safeguarding adults
- Medicines handling and management

Health service team members should engage in ongoing professional development activities, such as attending medical conferences, participating in educational seminars, and staying updated on advancements in medical research and practice.

9 Monitoring & Review

These competency requirements enable the Chief Medical Officer, Doctors, Health Extension Officers (HEOs), and Nurses to effectively lead, promote clinical excellence, and advance the delivery of high-quality, safe, effective, and compassionate care to clients and patients across various healthcare settings in OTML. Supporting continuous learning practices, including secondments, engaging in ongoing professional development, and staying updated on evidence-based practices, is essential for delivering high-quality care. This also involves participating in ongoing training and education to maintain proficiency in the health services field, as well as emergency medical procedures and protocols.

Clinicians must be registered under the medical board or nursing council with a certificate to practice. Additionally, they must annually register for ATP (Authority to Practice) to ensure they are fit for work, both physically and under medical registration, without needing board assessment.

The monitoring and reviewing process for OTML against its health services standards framework involves systematic evaluation and assessment to ensure compliance with regulatory requirements, industry best practices, and internal policies and procedures.

Audits and inspections

Audits and inspections shall be carried out periodically against the requirements of all elements of this standard and the PNG Mines Act/Regulation requirements and the PNG National Department of Health Standards. Key findings and actions identified in the audits/inspections shall be recorded and closed out in a timely manner to enable a proactive management and reduction of significant health and hygiene risks.

Key components of this process include:

- **Regular inspections:** Conducting routine inspections of mining operations, facilities, and work areas to identify hazards, assess risks, and ensure compliance with health and safety standards and regulations.
- **Clinical audits:** Conducting regular audits on medical and clinical safe practices aligning to patient care and management.
- **Incident reporting and investigation:** Promptly reporting and investigating incidents, accidents, near misses, and occupational illnesses to identify root causes, implement corrective actions, and prevent recurrence. This may involve analysing trends, identifying systemic issues, and implementing preventive measures to improve safety performance.
- **Safety audits and assessments:** Conducting periodic safety audits and assessments to evaluate the effectiveness of health and safety management systems, policies, and procedures. This may include assessing compliance with regulatory requirements,

identifying areas for improvement, and implementing corrective actions to address deficiencies.

- **Performance monitoring:** Monitoring key performance indicators (KPIs) and metrics related to health and safety performance, such as injury rates, lost-time incidents, near-miss reporting, and safety compliance audits. This enables management to track progress, identify trends, and take proactive measures to improve safety outcomes.
- **Employee engagement and feedback:** Engaging employees in health and safety initiatives, encouraging active participation in safety committees, and soliciting feedback on safety concerns, hazards, and improvement opportunities. This fosters a culture of safety ownership, collaboration, and continuous improvement throughout the organization.
- **Management review meetings:** Convening regular management review meetings to discuss health and safety performance, review incident reports and safety data, and make informed decisions regarding safety priorities, resource allocation, and improvement initiatives.
- **Continuous improvement:** Implementing a process of continuous improvement to systematically address health and safety gaps, implement corrective actions, and enhance safety performance over time. This may involve setting objectives and targets, implementing best practices, and benchmarking against industry peers.
- **External audits and certifications**: Participating in external audits, assessments, and certifications conducted by regulatory agencies, industry associations, or third-party auditors to validate compliance with health and safety standards, demonstrate commitment to safety excellence, and enhance stakeholder confidence.

By following the Plan, Do, Check, Act (PDCA) cycle, OTML can systematically plan, implement, evaluate, and improve health standards to ensure the safety and well-being of its employees. This includes:

Plan:

- Assessment and Planning: Conduct a comprehensive assessment of current health standards and identify areas for improvement.
- Goal Setting: Define specific, measurable, achievable, relevant, and time-bound (SMART) goals for enhancing health standards.
- Action Planning: Develop action plans outlining strategies, activities, and resources required to achieve the established goals.
- Training and Education: Provide training and education to employees on health protocols, procedures, and best practices.

Do:

- Implementation: Execute the action plans according to the established timelines and procedures.

- Data Collection: Gather relevant data and information during the implementation phase to monitor progress and performance.
- Communication: Ensure clear and effective communication with stakeholders regarding the implementation of health initiatives and changes.

Check:

- Performance Monitoring: Regularly monitor and evaluate the effectiveness of implemented health measures against predefined metrics and targets.
- Data Analysis: Analyse collected data to identify trends, patterns, and areas requiring further attention or improvement.
- Compliance Assessment: Assess compliance with health standards, regulations, and policies to ensure adherence and identify any deviations or non-conformities.

Act:

- Continuous Improvement: Based on the findings from performance monitoring and data analysis, take corrective actions as necessary to address identified issues and improve health standards.
- Review and Adjust: Review the effectiveness of corrective actions and make adjustments as needed to optimize outcomes.
- Documentation: Document all actions taken, lessons learned, and outcomes achieved as part of the continuous improvement process.
- Communication: Communicate changes, improvements, and lessons learned to stakeholders to foster transparency and engagement in the health standard improvement process.

By implementing a robust monitoring and reviewing process, mining companies can proactively identify and mitigate health and safety risks, foster a culture of safety excellence, and ensure the well-being of workers and surrounding communities.

10 References & Links to Associated Documents

Description	Author
National Health Service Standards for Health Services in PNG, 2nd Edition, Volume One-Three	National Department of Health, PNG
Public Health Act	National Department of Health, PNG
Nursing Competency Standards	National Department of Health, PNG
Infection, Prevention & Control Policy Guidelines	National Department of Health, PNG

11 Document Control History

Version	*Date*	*Description*	*Approved By*
1.0	31/07/2024	First Revision	Raymond Singamis

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