



## Laboratory System and Network Biosafety and Biosecurity

# Certified African Regional professionals: Level 1 Biological Waste Management



## Bongani J. Sigudla

Professional Title: Environmental Health Practitioner

Nationality: Swazi

Institution: Ministry of Health-Environmental Health Department Area of Expertise: Environmental Health/Biohazard Waste Management Certified as African Regional professional level 1 on Biological Waste

Management: 2023

Bongani Sigudla is an Environmental Health Scientist with an BSc in Environmental Health Sciences(Majoring in Environment Management), and holds a Diploma in Public Health Inspection, and various professional certificates Environment and social safeguards and waste management.

Mr. Sigudla is a National Health Care Waste Management (NHCWM) Coordinator in the Ministry of Health, and has work closely with World Bank (WB) Experts in the implementation and monitoring of WB Environment and Social Standards in all projects funded by the Bank in the Ministry. He received in-depth training on the WB Environment and Social Management Framework.

In his position as Senior Environmental Health Practitioner and NHCWM Coordinator he has influenced for the development of a National Health Care Waste Management Policy; National HCWM guidelines; and a Draft National Health Care Waste Management Regulations for the country. He is currently assigned by the Ministry to lead a multi-sectoral steering committee responsible for establishment/ implementation of a centralized biohazard waste treatment and disposal facility funded through Global Fund Mechanism. Bongani driven by his passion in biohazard waste management has enrolled in level 2 Certification in Biological Waste Management under the Regional Training and Certification Framework Program after successful completion of level 1 training.



## **Busisiwe Masengemi**

Professional Title: Laboratory Support Manager

Nationality: South African

Institution: National Institute for Communicable Diseases-South Africa

Area of Expertise: Biological waste management

Certified as African Regional professional level 1 on Biological Waste

Management: 2023

Busisiwe is a Laboratory Technologist with a BTech Biomedical Technology specializing in Virology and Molecular techniques. She holds a post graduate diploma in Total quality management, a Post Graduate Diploma in Business administration

Busisiwe is a Lab support manager in the National Institute for communicable diseases (RSA), where she is responsible for managing and Coordinating the pre-analytical activities as well as oversee the operations of the support service department to ensure an effective service to the NICD centers and external clients. Her role includes coordination of Biological waste management in the NICD Campus; this includes developing, reviewing and implementation of policies and standard operating procedure and Training.

She oversees all aspects of quality assurance within the unit to ensure the delivery of quality results and the implementation of timeous corrective action as and when required. She is involved in developing and mentoring of staff



## Cheleka Kaziya

Professional Title: Environmental Health Officer

Nationality: Zambian

Institution: Ministry of Health, Zambia

Area of Expertise: Biological Waste Management

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Management: 2023

Cheleka is an Environmental Health Officer with a Master of Science in Urban Management and Development. She holds a Bachelor of Science Degree in Environmental Health with a Distinction, Higher Diploma in District Health Management, Diploma in Environmental Health, Certificate in Water, Sanitation and Hygiene (WASH) in HealthCare Facility, Certificate in sustainability for Water Supply and Sanitation and a Certified Level I Professional in Biological Waste Management. Cheleka is currently Pursuing her PhD in Public Health at the University of Zambia.

Cheleka has been working for the Ministry of Health in Zambia for the past 26 years and served in different Portfolios at District, Provincial and National Levels. She has a great passion for improving WASH in healthcare facilities. She facilitated the development of WASH standards and assessment tool for WASH in healthcare facilities in Zambia. She equally spearheaded the development of the National Healthcare Waste Management Plan 2019-2024 for Zambia. She has Participated in the development of other Policy Documents such as the Guidelines for COVID-19 Infection Prevention and Control. She is a National Master trainer and Mentor in Infection Prevention and Control (IPC). She is a Chairperson for WASH in Healthcare facility coordinating committee in Zambia and also a member of the technical committee on Biosafety.

Cheleka is currently an Assistant Director Environmental Health under the Ministry of Health in Zambia.



### Helena Lamanguluka Hakwenye

Professional Title: Chief Health Program Officer

Nationality: Namibian

Institution: Ministry of Health and Social Services, Namibia Area of Expertise: Epidemiology ,Biological Waste Management Certified as African Regional professional level 1 on Biological Waste

Management: 2023

Helena is a Laboratory Scientist with an MSc in Applied Field Epidemiology. She holds a BSc in Environmental Health science. She has diverse working experience over 10 years in public health sector. Her career started as an Environmental Health Practitioner from 2013 and worked in the ministry health in areas of emergency preparedness and response.

Her responsibilities are outbreak investigations, emergency preparedness and response and capacity building for the regions. She is an IHR Focal Person, responsible for strengthening IHR (2005) core capacities and implementation of the National Action Plan for Health Security. She is also the chairperson of the National Biosafety and Biosecurity Technical Working Group.



## **Joseph Mwewa**

Professional Title: Biomedical Scientist

Nationality: Zambia

Institution: Ministry of Zambia - Laboratory Services - Zambia

Area of Expertise: Public Health/Medical Microbiology

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Management: 2023

Joseph Mwewa is a Biomedical Scientist with MSc in Medical Microbiology, Masters in Public Health (MPH) and BSc in Biomedical Sciences. Joseph is a Supervisor in the Ministry of Health based at the Headquarters, working as a Chief Biomedical Scientist, a position third from the Director in the Department of Clinical Care and Diagnostic Services. Joseph has participated in the review of Biosafety and Biosecurity Manual and is a Trainer of Trainers in Biosafety and Biosecurity. He participated in the Level One Regional Training and Certification Program for Biosafety and Biosafety Program – Biological Waste Management that took place in Johannesburg – South Africa. Joseph managed to pass level one and now has enrolled to pursue level two.

He is the Chief Biomedical Scientist in the Ministry of Health - Zambia.



## **Kelello Raphael Mapolosi**

Professional Title: Medical Laboratory Technologist

Nationality: MOH Lesotho

Institution: MOH Laboratory Services Lesotho

Area of Expertise: Microbiology, HIV expert in Molecular laboratory and

Health care, Biological waste management

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Management: 2023

Kelello Mapolosi is a Laboratory Scientist with BSc in Medical Microbiology. He also holds undergraduate diploma in Medical Laboratory sciences. He is an expert in HIV molecular viral load testing. That also includes HIV RNA extraction for genotyping using modern technologies.

Kelello is a biological health care waste Management expert for National Reference Laboratory and the hubs. He is a safety officer for National Reference Laboratory, a National Master Trainer on Health care waste management focusing on one health approach.

He participates in the review of the National Biosafety Biosecurity Manual, the Development of the National waste management policy and implementation guidelines, the review & implementation of the Biosafety and Biosecurity Waste management training curriculum, the development of the National Biosafety Biosecurity and waste management assessment tools, implementation of the international standards like ISO 35001:2019, ISO 15190:2020 and the WHO Biosafety Manual 4th edition which emphasizes a risk-based approach to the management of biological hazards and threats.



#### **Luwe Michael**

Professional Title: Biological Waste Management Level 1

Nationality: Malawian

Institution: Department of Animal Health and Livestock Development -

Malawi

Area of Expertise: Biological Waste Management

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Management: 2023

Michael is a Veterinarian with a Bachelor of Veterinary Medicine from the University of Zambia. He also has a Bachelor of Science in Agriculture (Animal Science); and he is currently pursuing an MSc in Global One Health. He successfully completed his QWArS Professional Qualification certificate in Epidemiology and fellowship program in Antimicrobial Use/Consumption stewardship.

Michael has been providing support to the Mzuzu Regional Veterinary Laboratory, one of the two regional veterinary laboratories in Malawi, which have been upgraded to perform microbiology testing. He also participated in the development of Bacteriology Manual and the development of the Livestock Development policy. He has also been involved in various One Health activities in the country. To ensure improvements in how biological wastes are managed, the department nominated him to participate in the regional training on Biological Waste management.

Currently, he works as an Animal Health Officer at divisional level; and he oversees the implementation of animal health activities.



#### **Manthatuoa Lineo Mohlomi**

Professional Title: Senior Health Inspector

Nationality: Mosotho

Institution: Ministry of Health

Area of Expertise: Biological waste management

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Management: 2023

Lineo is an Environmental Health Scientist with Degree in Environmental Health. Lineo is certified as a Trainer of Trainers for Biosafety and Biosecurity trainings. She has successfully completed training on Biological waste and performed good in the professional exam to be certified for program proficiency Level 1.

Lineo is a National Program Manager for Healthcare waste management in the Ministry of Health Lesotho. In the previous years she has worked with Millennium Challenge Cooperation in the development of management Healthcare waste documents which includes: Guidelines, Strategic Plan, Regulations, Policy, Standards, Procedures and tools; and training manual for the Ministry of Health. She participated in the draft development for Biosafety and Biosecurity Strategic Plan for Lesotho.



#### **Neo Judith Lemme**

Professional Title: Medical Laboratory Scientist

Nationality: Motswana

Institution: National Tuberculosis Reference Laboratory (NTRL): Botswa-

na National Health Laboratory

Area of Expertise: Biorisk Management, Biosafety and Biosecurity, Bio-

logical waste Management

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Neo Judith Lemme is a Biomedical Laboratory Scientist. She holds a BTECH (degree) in Biomedical Technology and a Higher National Diploma in Biomedical Technology, both qualifications were obtained in 2009 and 2008 respectively from Cape Peninsula University of Technology in Cape Town, South Africa. Ms Lemme has a considerable 11 years' experience as a qualified laboratory Scientist having worked in various healthcare facilities in Botswana and South Africa such as the National Health Laboratory Services (NHLS), Groote Schuur Hospital in Cape Town, South Africa, American Society for Microbiology (BOTUSA-CDC) and Bokamoso Private Hospital, Botswana. Ms Lemme's experience on Biosafety and Biosecurity dates back from 2013 when she was appointed the NTRL Biosafety Officer. Her responsibilities included ensuring employee health and safety by coordinating and monitoring the employee annual health surveillance, identifying potential laboratory risks, investigating incidents and accidents and putting preventive mitigations in place. This was done by performing monthly safety inspection, safety audits and annual risk assessments. She also participated in writing, reviewing and enforcing staff adherence to safety procedures and policies which gives guidance on safe manipulation of samples such as the safety manual, sample collection manual and safety related Standard Operating procedures (SOP). Other responsibilities includes planning and budgeting for the biosafety/biosecurity program. As a trained biosafety officer she also provided biosafety and biosecurity annual refresher trainings and guidance on the handling, management and proper disposal of waste in the laboratory in a way to promote a positive health and safe culture in the workplace. Ms Lemme was also a member of the NTRL quality and auditing team which is responsible for coordination of the overall laboratory quality management system. In April 2020 she was part of the team which led to the accreditation of the NTRL by ensuring the Laboratory biosafety program was ready for the SADCAS assessment. In 2020 during the COVID 19 pandemic Ms Lemme was part of the team which was responsible for rolling out and setting up mobile labs at the border posts for GeneXpert SARS COV 2 testing to allow testing of essential services personnel. Her role within the team was to capacitate staff on GeneXpert SARS COV-2 laboratory testing, COVID 19 Biosafety precautionary measures, setting up the mobile laboratory workflow to enable safe manipulation of COVID 19 samples and assessing COVID 19 testing facilities. In 2021 she was part of the team which drafted the clinical laboratory waste management policy and guidelines which was a collaboration between Ministry of Health and Botswana Training and Education Centre for Health (B-TECH). The manual was approved and Lab personnel were trained on it. Ms Lemme is a TB diagnostic master trainer (TB smear Microscopy and GeneXpert). She has been training laboratory personnel on Zeihl Neelsen (ZN), Fluorescent Smear microscopy (FM) and GeneXpert since 2012. She led quite a number of projects in my field of laboratory work. Being the Head of the National TB External Quality Assurance included coordination, planning and management of the TB EQA schemes and ensuring they are completed within the set deadlines. Moreover she led the geneXpert MTB/RIF to Ultra transition team which was responsible for rolling out and training the more sensitive GeneXpert test cartridge kit to peripheral TB testing sites in Botswana. She also led a team which implemented the first in country piloted preparation of the geneXpert Dried Tube Specimen Proficiency Testing (PT) .She was also involved in the 2021 BIAS/TB prevalence survey as biosafety/biosecurity trainer. Lastly, Ms Lemme is a team player, innovative, result oriented, target driven person who is always willing to learn and impart her learnt skills and knowledge on to others.

"When you have a dream, you've got to grab it and never let go" - Carol Burnett



## **Petrus Endjala**

Professional Title: Biological Waste Management level 1- Medical Labo-

ratory Technologist Nationality: Namibian

Institution: Medical Technologist-Ministry of Health and Social Services

Area of Expertise: Biological Waste Management

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Management: 2023

Petrus Endjala is the Chief Medical Technologist at the Ministry of Health and Social Services in Namibia, where he oversee and co-ordinate laboratory services and operations; Oversee blood transfusions services; Inspections of laboratories for compliance with minimum accepted standards; Ensure quality assurance implementation within the laboratories and provide technical advice to the Ministry in medical laboratory matters.

Before this Mr. Endjala worked for the Namibia Institute of Pathology (NIP), the institute which is mandated by the government to provide medical laboratory services to private and public clients. At NIP he was a senior Medical Technologist in charge of Haematology department at Windhoek Central Referral Laboratory.

Mr Endjala hold a National Diploma and Bachelor of Biomedical Technology from Cape Peninsula University of Technology- Cape Town-South Africa.

Mr Endjala is a member of IHR National focal point since year 2017.



## **Sandy Oshi Squizer Mookantsa**

Professional Title: Analytical Chemist/Research Scientist

Nationality: Motswana

Institution: National Agricultural Research and Development Institute-

Botswana

Area of Expertise: Analytical Chemistry and Biological Waste Management

Certified as African Regional professional level 1 on Biological Waste

Management: 2023

Sandy is a Laboratory Scientist with an MSc in Analytical Chemistry and 18 years of Laboratory experience. Over the past 15 years, he has held some leadership positions such as chairperson of the Laboratory Waste Management Committee (2007 to date), IAEA-BNVL Coordinated Research Project (2017 to 2022) and IAEA-INT5154 Project (2016-2020). He is currently serving as a Focal Point to the working Committee of the Botswana Chemical, Biological, Nuclear and Radiological Weapons Management Authority.

Sandy is a highly organized and self-driven individual, passionate about developing his career further in the field of chemical & Biological safety/ security (waste management), testing and research. His professional work involves implementing quality management system according to ISO 17025 and monitoring of veterinary drugs, hormones, pesticides and metallic elements residues in meat, water and other food commodities for beef export to the International markets. This entails method development, validation, research and analysis by HPLC, AAS, ICP/MS GCMS/MS and LCMS/MS equipment. He has attended several on-job trainings including ISO 17025 courses (Understanding and Auditing) over the years locally and abroad.



## Virgílio Santo António

Professional Title: Biologist Nationality: Mozambique

Institution: Instituto Nacional de Saúde, Moçambique Area of Expertise: Biological Waste Management

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Management: 2023

Virgílio is a Laboratory Scientist with an BSc in Applied Biology and now pursuing PhD Program in Biomedical Sciences at Instituto de Higiene e Medicinal Tropical, Universidade Nova de Lisboa, Portugal.

Virgílio is a focal point of trainings in Institutional Biosafety committee at Instituto Nacional de Saúde (INS). Over past 5 years, he has contributing to implementation of Biosafety and Biosecurity measures at INS. He participated in the review of the Institutional Biosafety Biosecurity Manual, Institutional Occupational Healthy Manual, other documents and guidelines for biosafety and biosecurity at INS.

He works in Zoonotic Emergent Reemergent and neglected viral diseases, Implementation of Biosafety and Biosecurity tools for BSL3 Laboratory and Molecular diagnostic and Research using PCR and sequencing technology.



#### **Zwane Zandile**

Professional Title: Laboratory Manager-Quality Assurance Laboratory

Nationality: Swati

Institution: Ministry of Health-Eswatini Health Laboratory Services

Area of Expertise: Bio-waste Management

Certified as African Regional professional level 1 on Biological Waste

Management: 2023

Zandile is a medical laboratory technologist with the Eswatini Health Laboratory Service network in the Ministry of Health in Eswatini. She holds a Bachelors' degree in Medical Laboratory Sciences form the university of Southern Africa Nazarene University. She has a little over 4 years of experience in the medical laboratory environment with knowledge in quality management system (ISO 15189:2012)

Zandile has been trained and certified as a biosafety officer by ASLM and has participated as a member of the Technical Committee for the draft review of Medical Laboratories-Requirements for Safety (ISO 15190:2020) by the Eswatini Standards Authority. She currently works at the National Quality Assurance Unit, were she managers the unit which facilitates and provides proficiency testing schemes to Eswatini Health Laboratory Service labs within the network. These include reference labs, main labs, mini labs and point of care testing sites.





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