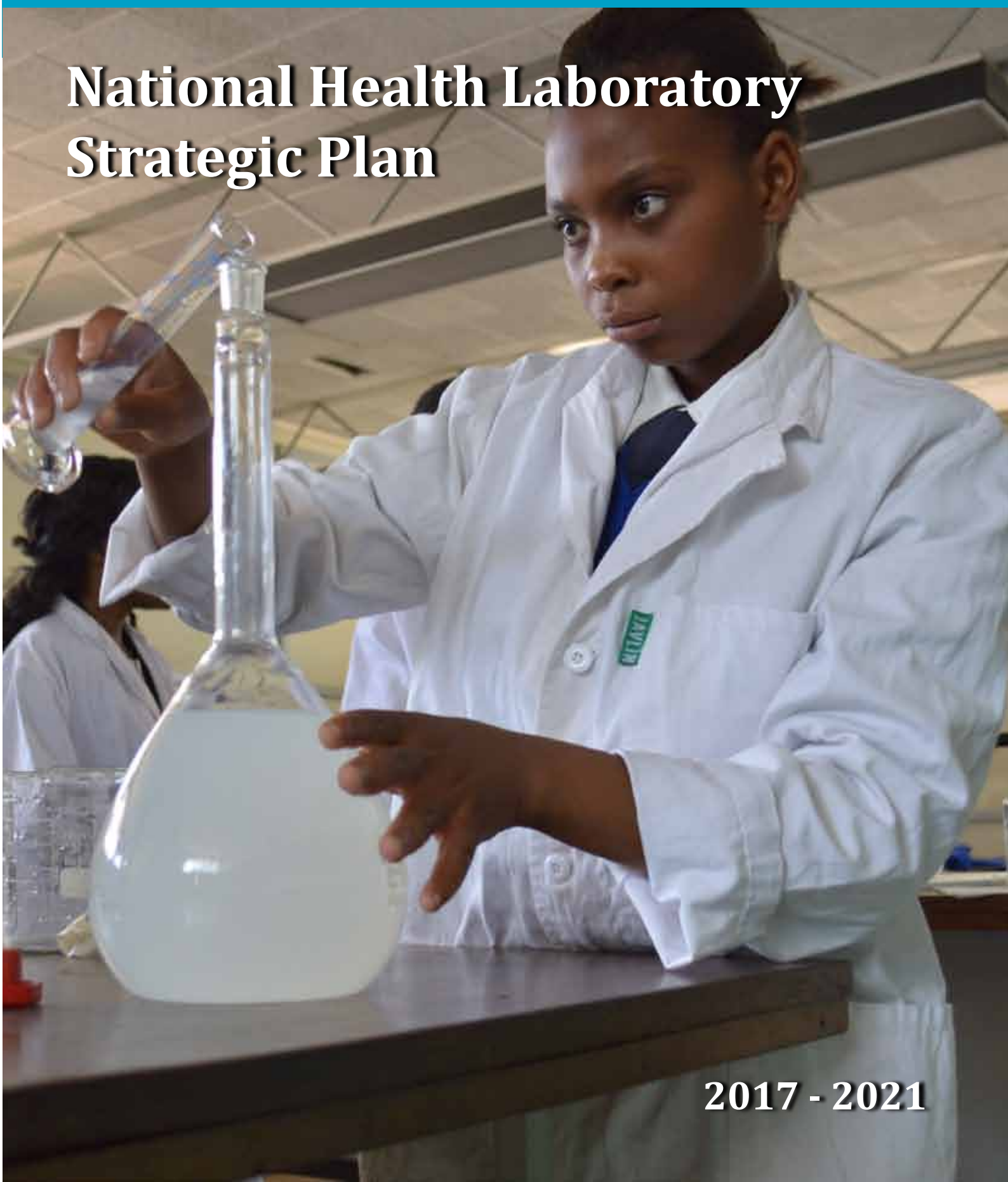


Ministry of Health & Child Care



National Health Laboratory Strategic Plan



2017 - 2021

FOREWORD

Accurate and reliable diagnosis is the cornerstone of disease management and prevention. As such, medical laboratories are indispensable as they provide the diagnostic services that are critical to individual case management but also to disease surveillance, control and education. This Strategic Plan (2017 - 2021) is a major milestone in the journey towards quality, accessible and reliable laboratory services.

The value of laboratory services is often overlooked despite its vital contribution to the provision of cost effective quality health care. Laboratory results provide the only scientific approach to patient management allowing the clinician to make accurate diagnosis and rationalize drug use. It is estimated that 70% of all diagnosis depend on the laboratory.

In addition, laboratories play a vital role in epidemiological surveillance, control of infectious diseases such as cholera, TB, diarrheal diseases and other communicable diseases. With the launch of the 90-90-90 UNAIDS HIV Global targets, the role of the laboratory has even been more heightened for diagnosis of people with HIV and monitoring viral suppression for people receiving antiretroviral therapy. In addition, other emerging public health threats such as MDR and XDR TB, Ebola virus have demonstrated the weaknesses and the need to revitalise the Laboratory services.

The Ministry of Health and Child Care is committed to strengthening the coordination and quality of laboratory services to support the implementation of the National Health Strategy. Furthermore, maintaining a functional and effective national health laboratory services requires guidance, support and regulation through well laid down policies and strategies. The overall objective of this strategic plan is to provide a shared vision, goals and targets for the laboratory services for the period 2017 – 2021.

I wish to thank all who contributed to the development of this strategic plan and call upon all the stakeholders and partners to align their present and future activities with the guidelines laid out in this strategic plan. The successful implementation of this strategic plan will contribute significantly to improved health service delivery in general.

Bregadier General Dr G. Gwinji
Permanent Secretary
Ministry of Health and Child Care

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The development of the Zimbabwe Health Laboratory Strategic Plan (NHLSP) involved the participation of stakeholders at different stages of the consultative process. In particular, the consultative process included planning meetings and review of key documents.

The contributions of the following institutions and organizations are acknowledged for the development of this strategic plan

- Ministry of Health and Child Care for the leadership and guidance provided through the Laboratory Directorate
- UNICEF and CHAI for the financial and technical support throughout the development, drafting, finalization and printing of the plan
- The members of the Laboratory Community for their commitment and dedication in developing the strategic plan
- Partners such as EGPAF, JSI, MSF, and others for the dedicated participation and contributions to the creation of this strategic plans

I would like to acknowledge the consultants and all participants from the National Reference laboratories, Central and District hospital laboratories, other organizations and individuals for their significant contributions in revising the Zimbabwe Health Laboratory Strategic Plan.

Mr D. Mangwana
Director Laboratory Services
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ABBREVIATIONS AND ACRONYMS

BRTI	Biomedical Research and Training Institute
DLS	Department of Laboratory Services
GOZ	Government of Zimbabwe
HIV	Human Immunodeficiency virus
M&E	Monitoring and Evaluation
MLCSCZ	Medical Laboratory and Clinical Scientists Council of Zimbabwe
MOHCC	Ministry of Health and Child Care
NBSZ	National Blood Services Zimbabwe
NMRL	National Microbiology Reference Laboratory
NTRL	National TB Reference Laboratory
PT	Proficiency Testing
EQA	External Quality Assessment
QC/IQC	Quality Control/ Internal Quality Control
UZ	University of Zimbabwe
WHO	World Health Organisation
ZINQAP	Zimbabwe National Quality Assurance Program

INTRODUCTION

Zimbabwe is a landlocked country situated in the southern part of Africa, with a total land area of 390,757 square kilometres. It shares borders with Zambia, Mozambique, South Africa, Botswana, and Namibia. The country has a population estimated at 12 million. It is divided into 10 administrative provinces, two of which are urban (i.e. Harare and Bulawayo). The provinces are in turn divided into 62 districts.

Zimbabwe is one of the countries within the Sub-Saharan region that are seriously affected by the HIV and AIDS pandemic. The HIV and AIDS in Zimbabwe is generalised and mature. The adult HIV prevalence is estimated at 15% and about 1.4 million are people living with HIV. Other priority diseases and conditions to be addressed are malaria and TB.

The Government of Zimbabwe desires to have the highest possible level of health and quality of life for all its citizens, attained through the combined efforts of individuals, communities, organizations and the government, which will allow them to participate fully in the socioeconomic development of the country. This vision will be attained through guaranteeing every Zimbabwean access to comprehensive and effective health services.

The country's health care delivery is guided by the National Health Strategy. One of the National Health Strategy' main objectives is to seek equity in health by targeting resources and programs to the most vulnerable and needy in the population. The public health system is built on primary health care services which are provided through rural health centres and rural hospitals in each of the rural districts.

The laboratory services in Zimbabwe has the responsibility to fulfil the needs of all patients and clients, and promote the health and well-

being of the public in the following service areas; public health and epidemiological needs, clinical health and the provision of safe blood and blood products, national reference laboratory function, quality assurance, teaching and research. These laboratories operate with minimum standard requirements for equipment, reagents and supplies, staffing levels and qualifications, repertoire of available tests at each level of the tiered system from Rural Health Centre right up to the National Reference Laboratories.

In Zimbabwe, the role of health laboratory services, as integral and important to both clinical and public health functions, is increasingly recognized. For years, public sector laboratory services and systems have been severely neglected. Despite this central role, strengthening laboratory services has, until recently received inadequate attention in the country. Unfortunately, these recent efforts have gone into improving disease specific control programs such as HIV/AIDS, TB, and malaria, where the funding has been available through global health initiatives.

There has been significant effort to improve and strengthen the quality of health laboratory services in Zimbabwe. However, there are still many challenges to be addressed such as operating with a limited budget, inadequately staffed laboratory facilities, inadequately maintained equipment, and inadequate supplies. This National Health Laboratory Strategic Plan aims at improving and strengthening the quality and management of health laboratory services at all levels of the healthcare delivery system. This will be achieved through complemented efforts involving the Ministry of Health and its partners.

EXISTING LABORATORY SERVICES

Health laboratories refer to government institutions, private institutions, research and teaching institutions. The MOHCC laboratories are organized under the Laboratory Services Directorate covering the disciplines of Medical Microbiology, Chemical Pathology, Haematology, Histopathology and Blood Bank/ Blood Transfusion.

The Health Laboratory System has two major arms; first the public health laboratories that serve the department of epidemiology and disease control in the Ministry of Health and Child Care (MOHCC). These include institutions such as the Government Analyst and the (National Institute of Health Research) NIHR. These laboratories are community focused as opposed to clinical care of individual patients.

The second arm of the laboratory system is the diagnostic laboratory service based in hospital institutions, independent private laboratory facilities and the National Blood Service of Zimbabwe (NBSZ), which is an independent body. The diagnostic laboratory services focus on patient clinical quality care. These laboratories include public health laboratories, mission laboratories, uniformed forces laboratories, local authorities, city council laboratories, national reference laboratories [National Microbiology Reference Laboratory (NMRL), National Tuberculosis Reference Laboratory (NTBRL) & National Virology Reference Laboratory, (NVRL)], private clinical laboratories, veterinary laboratories, research laboratories, training institutions laboratories and Zimbabwe National Quality Assurance Programme, (ZINQAP).

1.1 Public facilities

1.1.1 National Reference laboratories/ Central/Province/District/Rural health centres

A menu of tests for each level of services has been defined with reference laboratories offering reference services. Central hospital laboratories offer a greater range of more complex tests than provincial and district laboratories. At the lowest level the health centres offer low complexity testing (e.g. rapid HIV tests, malaria, malaria and TB smear microscopy and other point of care tests). Stand-alone VCT for HIV are also offered by NGO's. Services are offered nationwide with an equitable distribution of health facilities.

1.1.2 The National Blood Services Zimbabwe (NBSZ)

The NBSZ is registered as a non-profit making company under section 26 of the Companies Act, Chapter 24:03 and is also registered as a private voluntary organization (WO/54/68) as required by the Private Voluntary Organizations Act, Chapter 17:05. The Service has managed to provide a nationally and internationally recognised and renowned blood service. The Service attained the WHO Collaborating Status and it was requested by WHO to be a Regional Quality Training centre. A Quality Management System based on ISO9001:2000 was introduced in 2004. The transfusion of blood and blood products is recognized as one of the essential therapeutic interventions in modern health care, hence, the service is commitment to provision of effective blood service. The donation of blood is governed by the Anatomical Donations and Post-Mortem Examinations Act, Chapter 15:01. The administration of the Act falls under the Ministry of Health and Child Care (MOHCC).

Consequently, those operations of the NBSZ relating to the collection and use of donated blood are regulated by the Act. However, this does not make all the operations of the NBSZ accountable to the MOHCC. The National Committee is the

highest decision making body of NBSZ with responsibility to provide an enabling environment for management to implement agreed policies. The National Committee is made up of elected blood donors and co-opted members representing the MOHCC, the Secretary General of Zimbabwe Red Cross Society (ZRCS), National AIDS Council (NAC) and the Executive Secretary of National Association of Medical Aid Societies (NAMAS) and the Pledge 25Club Chairperson. From NBSZ, the Chief Executive Officer, Medical Director, Bulawayo Branch Manager are ex-officio members of the National Committee.

The NBSZ provides safe blood and blood products to all hospitals in Zimbabwe and is the sole provider of this service. Its main customers are MOHCC, mission and private hospitals. MOHCC by virtue of it being the largest provider of healthcare in Zimbabwe is also its largest customer. It is internationally accredited and recognized as a centre of excellence.

1.1.3 Government Analyst's Laboratory

The Government Analyst's Laboratory is funded directly by MOHCC and is situated in Harare. It is the reference laboratory for all chemical analysis in public health and organizationally it is divided into units namely: Customs and Industrial, Clinical and Toxicology; Food Unit, Waters Division, Urine and Iodine Laboratory.

1.1.4 National Institute of Health Research

The National Institute of Research formerly Blair Research Institute of the Ministry of Health & Child Care is situated in Harare and its core business is research in biomedical sciences, communicable and vectors borne diseases, health systems policies and technologies. It has well qualified staff and has an active research program that provides useful information to support government health policies and information to program managers to

combat the most prevalent diseases. It is organized into 3 sectional departments namely Vector Borne Diseases, Communicable & Infectious Diseases, Health Systems & Technologies and two support units. The Support units are divided into administration and technical support services; the laboratory is one of these support units that provide services to the research activities. The laboratories are in microbiology, immunology, molecular biology, schistosomiasis, serology and malaria and mainly support research activities.

1.1.5 Central Veterinary Laboratory

It belongs to the Department of Veterinary Services, Ministry of Lands and Agriculture. It is the referral laboratory and part of a network of veterinary laboratories with services decentralized to the provincial laboratories. It plays a key role in zoonosis control. Its main services are disease diagnosis, outbreak investigations and disease preparedness, specialist referral and advisory service, and research. It collaborates with a number of overseas research institutes in research projects and with the University of Zimbabwe (UZ) and National Institute of Health Research. It receives specimens from National Public Health Laboratories for specialist tests, Environmental Health Department and private veterinarians. It participates in reporting notifiable diseases to the Health Information System, Department of Epidemiology & Disease Control. It provides also attachment training for students from the UZ.

1.1.6 Zimbabwe National Quality Assurance Programme (ZINQAP)

The Zimbabwe National Quality Assurance Program (ZINQAP) was established in 1995 with a mandate to assist all laboratories in Zimbabwe attain and maintain a high standard of performance and to improve the quality of testing services. It is the only laboratory quality assurance body in Zimbabwe conducting a proficiency-testing

program. It attained international accreditation to SANAS ISO Guide 43 in February 2005 and later to the SANAS ISO 17043:2010, making it the first internationally recognized PT body in Zimbabwe and the second in Africa to attain this standard. It provides a comprehensive PT service to 130 medical laboratories both public and private and testing sites in Zimbabwe. These laboratories perform at different levels of participation and complexity in the major laboratory disciplines which include Immunology, Microbiology, Haematology/ Blood Transfusion Medicine and Clinical Chemistry. ZINQAP'S organizational structure is made up of a Board of Trustees which oversees the work of the organization.

1.2 Private sector and other research institutions

In Zimbabwe, the capacity of the public sector to provide quality and accessible health care services

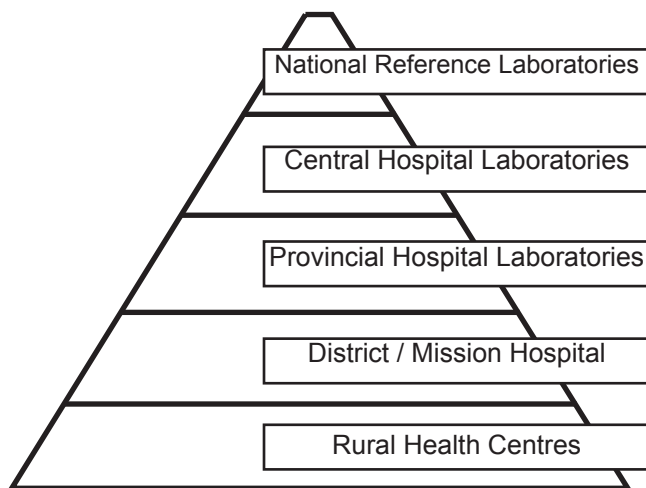
to the citizens is complimented by private providers. The largest of these are CIMAS Laboratories, Premier Laboratories and Clinical Laboratories. Public-private partnerships have existed at various levels for many years with cross referral of specimens and joint training and technical committees.

Other non-governmental research institution exists and includes Biomedical Research and Training Institute (BRTI) and the African Institute of Biomedical Science & Technology (AIBST).

2 SITUATION ANALYSIS

2.1 Laboratory organization and structure

Zimbabwe has a well-developed health care delivery system. The laboratory services are coordinated by the Laboratory Directorate, a department under the Ministry of Health and Child Care. The Laboratory Directorate operates an integrated tiered network consisting of over 170 Registered diagnostic centres/ Laboratories operating at five main levels organized along the referral chain of health service delivery as indicated below:



The current laboratory services are organised to serve both clinical and public health needs. As a result, the national laboratory services, as part of the national health system, support curative, preventative and public health components of the health system.

The health laboratory services are geared towards clinical care and are based in health facilities which falls under the department of clinical services. This has raised complications in reporting, significantly compromising DLS ability to manage and coordinate the services in the country. Linkages

between the laboratories at different levels remain weak because of lack of focal persons at Provincial and District level. The DLS sometimes has an overwhelming task of directly interfacing with the more than 170 labs in the country which severely limits top supervision and technical support to these lower facilities. This also overwhelms the limited staffing at Directorate that currently consists of the Laboratory Director, Deputy Laboratory Director, TB Focal person and the Logistics Coordinator.

2.2 Laboratory tiered network and referral

Except for private laboratories, most laboratories in Zimbabwe are essentially based in health care facilities with their complexity increasing with the level of the facility. There is one district hospital in each district. District hospitals in turn refer to the provincial or central hospitals. Most the laboratories are at district level including mission hospitals. There are five central hospitals that provide tertiary and quaternary health care services in the country. Local authority or municipal clinics provide much of the primary health care in both rural and urban areas. Faith based organisations are a major provider of the health services in most rural areas.

There has been a general deterioration of laboratory services where the tiered system has failed to provide the standard package of laboratory tests in support of the health delivery system at each level of healthcare. Although test menu is defined at each level of the tiered system, many laboratories are not able to consistently fulfill the testing requirements due to lack of personnel, frequent stock out of supplies and lack of or frequent breakdown of equipment. This has resulted in patients seeking services from the private sector where the costs are unaffordable and continue to increase beyond the reach the average Zimbabwean. In some cases,

complex tests or functions are being performed in even lower tiers which previously would not.

The laboratory services are intended to function as a network with a system that allows for referral of specimens or patients to the next level. This type of referral system is currently not functional largely due to resources needed at each level. Only donor supported services such T.B, and early infant diagnosis of HIV, have clearly defined and functional referral systems that run from the lowest level to the central or national level. However, there have been recent efforts to build an integrated sample referral system to address this gap.

2.3 Legal and Regulatory Frameworks

The Medical Laboratory and Clinical Scientists Council of Zimbabwe is a statutory regulatory body enacted by an Act of Parliament of the Republic of Zimbabwe under the Health Professions Act Chapter 27:19 of 2001, which is responsible for the licensing of medical laboratory personnel, medical laboratories/test sites and setting of standards of training for medical laboratory personnel. The Council also oversees the regular monitoring of laboratories during regular supervisory visits.

Over the years, the capacity of the Council has been limited largely due to underfunding and understaffing. The lack of funding has restricted the council's capacity to implement its regulatory role and this has led to many laboratories operating without proper registration of staff or the facilities themselves. With the advent of Point of Care testing, classification, registration and licensing of non-laboratory personnel has remained loosely defined.

2.4 Human Resources

The Department of Medical Laboratory Sciences at the University of Zimbabwe is involved in the training

of the bulk of the Medical Laboratory Scientists who are involved in carrying out laboratory diagnosis of various diseases. However, human resources remain a major challenge as experienced Medical Laboratory Scientists and those graduating from the Department of Medical Laboratory Sciences at the University of Zimbabwe College of Health Sciences continue to leave the country into the region and overseas. This has affected the capacity to provide laboratory services in most part of the countries especially in the peripheral areas. For those who have stayed, they are poorly motivated e.g. due to low remuneration.

Different strategies have been rolled out to ensure at least laboratory facilities are manned by trained cadres. Programs for training lower cadres such as SCMLT and microscopists are ongoing to try and address the staffing gaps in many laboratories.

The pre-service training curricula need to be revised and standardised to meet the country's needs in terms of technology changes and new concepts. Laboratory associations are not yet visible in Zimbabwe and therefore there are no opportunities to train, motivate and improve ethical standards of their members.

2.5 Laboratory Equipment and Commodities

The Laboratory Directorate together with its partners have developed a Harmonisation and standardisation guideline for procurement and placement of equipment. This is a document that will be guiding the equipment selection, procurement and deployment to the different tiers of laboratory services. However, many laboratory stakeholders have not been sensitized on the Harmonisation and standardisation guidelines. As such, many partners purchase equipment with varying specifications leading to difficulties in their servicing and maintenance. Currently old and existing have no service and maintenance plans.

Mechanisms for disposal of obsolete equipment are not effective in most facilities leading to space challenges within the laboratories. Introduction of technology has been hampered by lack of clarity on the process of equipment evaluation and the institutions coordinating these evaluations.

The establishment of a laboratory Logistician working with the logistics sub unit (LSU), has substantially improved coordination, procurement and supply management of laboratory commodities. This unit is responsible for forecasting, quantification, procurement and distribution of all commodities (Laboratory Equipment and Reagents/ Consumables). While the Logistic unit has greatly improved the supplies situation in the country, the list of supplies is usually HIV related and as a result other tests have stock outs. At the facilities, personnel are often not knowledgeable about logistics management and as a result there is overstocking in a bid to make sure their laboratories have adequate supplies. This has contributed to reagents expiring in many laboratories and in turn reducing the storage space. The process for disposal of expired reagent is not efficient.

2.6 Infrastructure

Most of the hospitals and health facilities in Zimbabwe benefited from the DANIDA project that built hospital laboratories. These laboratories were built following the standard laboratory infrastructural guidelines. However, there are some hospital that still are having infrastructural challenges where the laboratory space was not originally designed for laboratory testing. The majority of these health laboratory facilities in the country have not undergone regular routine maintenance since they were constructed years ago. Renovations are needed for some as scope of testing has been changing over time. The greatest challenge has been space that is being taken up by obsolete equipment and expired reagents.

2.7 Quality Management System (including Biosafety)

Since 2010, several Quality Management System training programs have been initiated in Zimbabwe to support laboratories improve their quality of testing and results. One of the training program was the Strengthening Laboratory Management Towards Accreditation (SLMTA) program and the WHO AFRO Stepwise Laboratory Improvement Process Towards Accreditation (SLIPTA) program. Although these programs were well received, they have had limited coverage in reaching to all laboratories. There has also been continuing challenges in the roll out of the Quality training programs resulting in declining culture of quality. This decline has caused loss of trust in the laboratory services by both clinicians and patients. Most laboratories are not verifiably compliant with basic quality standards. There is also lack of a national certification program to oversee the implementation of minimum standards for quality in Zimbabwe for all laboratories.

An external quality assessment (EQA) scheme exist in the country and is overseen by the Zimbabwe National Quality Assurance Program (ZINQAP). However, the scheme is limited in scope and coverage. Participation of laboratories in the EQA programs is still left to the laboratories to decide and as such many laboratories participate irregularly and inconsistently.

Biosafety programs still need to be developed and rolled out to the laboratories.

2.8 Laboratory Information System

Paper based laboratory information system remains the main tool for the collection and storing of results of patients. In many laboratories, this

information is still kept in files and logbooks. However, there is no mechanism to ensure a flow of this information in a collated way to the next level up to the national level. There is a need for a National Laboratory Information System that manages and disseminates data.

There are electronic LIS platforms that have been developed and are in use to support delivery and management of laboratory results. However, these LIS are currently disease or program specific such as EID and TB program. An integrated LIS approach will address the disparities in managing and disseminating laboratory data. The currently laboratory paper based information is not linked to the MOHCCDHIS for effective integration of laboratory data.

2.9 Research, development and Collaboration

Currently, there are no coordinated mechanisms for conducting operational research geared at improving laboratory service delivery. While research institutions and Universities exists within the country, and have the capacity to conduct research, there not efforts to create linkages and

collaborations with the public health laboratories. This is also compounded by the inadequate capacity among the majority of laboratory professionals to exploit these data, develop proposals and conduct operational research.

2.10 Monitoring and Evaluation

Currently there is no effective system or measurable indicators to assess the laboratory system's performance on whether it is effectively supporting the service delivery. There is lack of clearly defined laboratory indicators and M & E tools. Where M&E is happening,

It is vertical and related to specific funded programs. There is a need to develop M&E tools and indicators that support the delivery of laboratory services.

2.11 Financing Laboratory Services

The health laboratory services are grossly under-funded. This urgently needs to be addressed. This has been compounded by inadequate systems and skills for planning the utilization and for accounting for the limited resources invested in laboratory service delivery.

2.12 SWOT ANALYSIS

Strengths	Weaknesses
<ul style="list-style-type: none"> • Laboratory Directorate in place • MLCSCZ in Place • Logistic Unit in place • Laboratory infrastructure in most hospital facilities • Documented laboratory tiered system • ZINQAP supporting the national EQA program • Availability of research institutions and universities involved in research • Training Universities for the Laboratory personnel • Existence of laboratory budget line 	<ul style="list-style-type: none"> • Non-standardized equipment and reagents • Stock-outs especially for non-HIV tests • Lack of registering and monitoring of all laboratories • Inadequate servicing and maintenance plans • Frequent breakdown of equipment • Inefficient obsolete equipment and expired reagents disposal mechanisms • Weak specimen referral system • Declining culture of quality • Weak collaboration between the existing research institutions and the general health laboratories • Lack of clearly defined laboratory indicators and M&E tools • No National Laboratory Information System that manages and disseminates data • Inadequate budgetary allocation for laboratory services

Opportunities	Threats
<ul style="list-style-type: none">• Harmonisation and Standardisation guidelines in place• Existing program specific sample referral systems and piloted integrated sample referral system• Technical working groups• Newly formed Laboratory association• Existing program specific electronic LIS• Role of laboratory recognized and elevated by programs such as UNAIDS 90-90-90 targets• Funding support from laboratory partners• Institutionalization of the SLIPTA program for certification of laboratories	<ul style="list-style-type: none">• Limited staffing at Directorate level• Lack of the National certification program and Quality Assurance department• Lack of accredited NRLs• Staffing challenges

3 THE STRATEGIC PLAN

This National Health Laboratory Strategic Plan (NHLSP) is developed to implement the Zimbabwe National Health Laboratory Policy - 2015. The NHLSP is an important document to articulate the shared vision, goals and targets for the laboratory services for the period 2016 – 2020. It will serve as a basis for advocacy, resource mobilisation and programming during this period. The five year NHLSP will provide a clear road map in the form of strategies and a plan of action. In the next five years, the NHLSP will execute the listed activities with the Director of Laboratory services providing leadership.

The NHLSP gives strategic direction in 11 strategic areas namely:

1. Laboratory organization and structure
2. Laboratory tiered network and referral
3. Legal and Regulatory Frameworks
4. Human Resources
5. Laboratory Equipment and Commodities
6. Infrastructure
7. Quality Management System (including Biosafety)
8. Laboratory Information System
9. Research, development and Collaboration
10. Monitoring and Evaluation
11. Financing Laboratory Services

Vision

To provide the best, high quality evidence based laboratory services, which are accessible and affordable to the population of Zimbabwe.

Mission Statement

To timeously provide the best quality laboratory services and results to clients, in order to fulfil the laboratory services role in the health delivery system.

Good governance

The following principles will guide the implementation of this policy:

- a. Efficient and effective utilisation of resources
- b. Integrity and honesty
- c. A transparent system shall be in place to ensure programmatic and financial accountability of the laboratory services
- d. Ethic

3.1 STRATEGIES

3.1.1 Laboratory organization and structure

Policy Objective

To have a clear organizational structure with appropriate authority to coordinate and manage the provision of comprehensive health laboratory services at all levels in the country.

Specific objective

1. To strengthen the Directorate in order

to provide adequate administrative and technical oversight over laboratory services across all agencies and the private sector.

2. To facilitate and enhance service provision across all tiers of the laboratory systems.

Strategic activities

1. Create and recruit focal persons for the following areas: Quality Assurance, M&E/ Research and Development, ICT & LIMS.
2. Support the national laboratory logistician to continue to have oversight on procurement of laboratory commodities
3. Strengthen the role of Laboratory Technical Working Group (TWG). There shall be one TWG with Terms of Reference (TORs) defined by DLS with members co-opted according to specific needs defined by DLS
4. Create posts for Provincial and district laboratory managers
5. Provide resources and technical capacity to the appointed focal personnel at all tiers
6. Conduct quarterly feedback meetings with all laboratory staff and key stakeholders
7. Conduct annual review of laboratory plans

3.1.2 Laboratory tiered network and referral

Policy Objective

To provide laboratory services appropriate to each level and that meets the needs for the delivery of health services at that level.

Specific objective

1. To ensure equitable coverage and access to high quality laboratory services
2. To strengthen the specimen referral system

Strategic activities

1. Disseminate approved guidelines for the test menus for all tiers to all laboratories
2. List commodity requirements for the test menus to assist with annual budget planning
3. Approve and disseminate the harmonization and equipment standardization requirements for each level of health care
4. Procure conventional equipment and distribute according to testing complexity at each level
5. Develop and implement a plan to enhance the capacity for standardized laboratory testing
6. Increase access to laboratory services through appropriate POC diagnostics
7. Ensure appropriate deployment of skilled laboratory personnel to all levels
8. Promote rational and appropriate use of laboratory services among clinicians, laboratory practitioners, and the general public
9. Support and expand the NMRL into a multi-disciplinary referral laboratory
10. Strengthen the NRL's to provide laboratory support necessary for disease surveillance, investigations and management of outbreaks

11. Design an integrated specimen and results transportation system
12. Develop effective guidelines for specimen referral and result reporting
13. Pilot the integrated specimen and results transportation system
14. Implement the integrated specimen and results transportation system in all the laboratories

3.1.3 Legal and Regulatory Frameworks

Policy Objective

To ensure registration, licensing, education and discipline in the medical laboratory professions and maintenance of quality standards for laboratories

Specific objectives

1. To strengthen professionalism among laboratory professionals
2. To ensure practising laboratory premises comply with applicable regulations

Strategic activities

1. To enforce registration of practicing laboratory professionals and premises.

3.1.4 Human Resources

Policy Objectives

To ensure adequate availability of laboratory personnel with the appropriate skills and competencies to support the delivery of a comprehensive laboratory services at each level of health care

Specific objectives

1. To improve laboratory personnel recruitment and motivation to achieve the retention
2. To develop a career path for Laboratory professionals
3. To strengthen and standardize pre- service training programs for laboratory personnel.

Strategic activities

1. Conduct human resources audits periodically to determine and fill staffing gaps within laboratories
2. Review the staff establishments in line with new technologies and disease trends
3. Define and provide incentives for staff in peripheral areas
4. Avail training opportunities for laboratory personnel to improve skills in management and leadership
5. Support training of lower cadres (e.g. SCMLT and microscopists) for deployment to lower levels
6. Support the establishment of a laboratory professional association to conduct Continuous Professional Development (CPD) point system
7. Design and develop a career path for laboratory staff including an agreed

- internship period in lower level laboratories
8. Implement and evaluate CPD program and continually implement improvements
 9. Support review and implementation of standardized curricula by training institutions to match the evolving laboratory testing

3.1.5 Laboratory Equipment and Commodities

A – Equipment

Policy objective

To ensure that laboratories are adequately and appropriately equipped in order to meet requirements of the service delivery system

Specific objectives

1. To harmonize and standardize equipment by level of testing
2. To ensure there is appropriate technology and equipment in place at all levels
3. To ensure all equipment have service and maintenance plan
4. To deploy all POC devices according to national guidelines

Strategic activities

1. Launch the harmonization and standardization guidelines on equipment and personnel and disseminate them to all facilities and stakeholders
2. Operationalize harmonization and standardization of equipment guidelines (redistribute equipment if necessary)

3. Deploy all approved conventional equipment according to national guidelines
4. Develop an equipment replacement plan
5. Mobilize resources for procurement of equipment, servicing and maintenance of new and existing equipment
6. Dispose obsolete equipment according to the National guidelines
7. Review guidelines to ensure that every equipment that is procured has a service and maintenance plan
8. Strengthen coordination between DLS, partners and other MOH programs on laboratory equipment procurement
9. Coordinate the evaluation of all POC devices
10. Disseminate and operationalize the POC testing guidelines
11. Deploy POCs according to the POC guidelines

B – Commodities

Policy objective

To ensure uninterrupted supply of laboratory reagents and consumables at all levels of health care

Specific objectives

1. To strengthen management of laboratory commodities at the facility level
2. To harmonize procurement and distribution for integrated laboratory services
3. To provide pre-service supply chain management training for laboratory

- undergraduates/trainees
- 4. To provide in service training in supply chain management
- 5. To computerize the Logistics Management Information System (LMIS).
- 6. To facilitate and implement laboratory guidelines for environmentally safe disposal of laboratory commodities

Strategic activities

1. Evaluate the laboratory logistics system
2. Review annually standard operating procedures and training curriculums for the laboratory logistics system
3. Train new and existing staff (refresher) on the laboratory logistics system
4. Maintain the existing laboratory logistics unit which integrates existing programs
5. Monitor and support the new laboratory logistics system with quarterly reviews
6. Provide product specifications as and when required by procurement agencies
7. Strengthen the technical working group on supply chain management
8. Conduct a forecasting and quantification of laboratory reagents and supplies at least twice a year
9. Maintain and monitor a national pipeline database including timeliness
10. Monitor the supplier performance and quality of deliveries
11. Develop supply chain curriculum for laboratory training institutions
12. Design and develop a computerized LMIS

13. Implement and maintain the computerized LMIS
14. Develop laboratory guidelines and standard operating procedures for disposal of commodities
15. Facilitate disposal of expired laboratory commodities using government approved procedure at least once a year

3.1.6 Infrastructure

Policy objective

To ensure all laboratories meet minimum infrastructural requirements as defined by National Guidelines for Medical Laboratories

Specific objectives

1. To ensure infrastructure is available to match scope of testing at every health institution.
2. To ensure that all laboratory infrastructures are routinely inspected for compliance to National Guidelines for Medical Laboratories.

Strategic activities

1. Conduct National Assessment on the state of laboratory infrastructure using the minimum set guidelines
2. Develop a work-plan with a list of prioritized labs for the upgrading of infrastructure
3. Source funding for the upgrading of the laboratory facilities
4. Work with Ministry of Public Works department to review specifications

for renovation/construction of public health laboratories to address identified infrastructural gaps

5. Develop a schedule for inspection to ensure that all the laboratories are inspected within the 5 years using a standardized checklist.
6. Conduct assessments according to schedule, develop and implement recommendations for improvement

3.1.7 Quality Management System

Policy objective

To provide quality laboratory services that meet international standards of practice.

Specific objectives

1. To ensure there is a Quality Assurance Unit for the Laboratory Directorate to oversee quality management programs.
2. To establish a national laboratory certification programme to support certification and accreditation of laboratories
3. To facilitate laboratories to participate in Quality Improvement programs
4. Strengthen current EQA systems to provide full scope of EQA services that cover all testing in Zimbabwe and provide for remedial action to poor PT/EQA performers
5. To ensure all laboratories participate in PT schemes and/ or inter-laboratory comparison / IQC for all testing done including Point of Care.

Strategic activities

1. Define TOR for Quality Assurance Unit
2. Recruit the Quality Assurance Coordinator and team for the Laboratory Directorate to oversee quality management programs.
3. Establish a TWG to spearhead the establishment of a national laboratory certification program
4. Set up the national laboratory certification program for laboratories and Point of Care testing sites
5. Adopt guidelines to use as minimum standards in certifying laboratories and enhancing quality.
6. Conduct national certification assessments for all laboratories
7. Accredite National Reference laboratories to international standards
8. Adopt a WHO recommended QMS Training Program for lab quality improvement and meet the requirements of Zimbabwe Medical Laboratory Guidelines.
9. Establish and refresh a national pool of trainers.
10. Roll out trainings using the adopted QMS training program
11. Develop national QMS documents (policies, SOPs and forms) for adaptation by laboratories
12. Designate and train staff to be responsible for implementation of quality management in every laboratory (including safety)
13. Allocate funding for PT participation for all labs & Point-of-Care testing sites.
14. Procure IQC panels for all disciplines for all laboratories
15. Register and ensure participation of

laboratories in PT schemes and/ or inter-laboratory comparison recognized by the MLCSCZ

16. Monitor the PT performance (and corrective actions taken) of all laboratories annually

3.1.8 Biosafety

Policy objective

To promote safe and secure laboratory practices at all levels.

Specific objectives

1. To ensure all facilities have appropriate space and safe environment for lab personnel, clients, the general public and environment To ensure lab workers are trained in Biosafety and Biosecurity
2. To ensure national reference laboratories have capacity and access control systems to handle highly infectious organisms and meet nationally acceptable containment standards.

Strategic activities

1. Disseminate the minimum standards for appropriate space and safe environment for health personnel, clients, the general public and environment and framework for disposal of biological and bio-hazard material.
2. Conduct bio risk assessments in all laboratories to ensure they meet the minimum biosafety and biosecurity standards.
3. Develop and implement a plan to refurbish/

upgrade labs to meet minimum biosafety and biosecurity standards

4. Adopt a WHO recommended Biosafety Training Curriculum including IATA Specimen transportation regulations
5. Establish a pool of Biosafety and Biosecurity trainers
6. Train and sensitize laboratory personnel in biosafety and biosecurity
7. Adopt and implement the WHO Containment Standards
8. Develop and disseminate a national list of dangerous chemicals, infectious agents and other dangerous materials to facilities and personnel
9. Maintain inventory system to account for infectious and dangerous organisms

3.1.9 Monitoring and Evaluation

Policy objective

To monitor and evaluate the quality of the laboratory services using clearly defined laboratory indicators

Specific objectives

1. To develop and implement M & E system to assess performance of the laboratory services

Strategic activities

1. Develop a laboratory M & E framework in alignment with the National M & E plan (indicators, reporting, sources of data, feedback mechanism)

2. Appoint/hire an M & E coordinator within DLS
3. Establish and implement detailed M & E procedures
4. Develop measurable indicators, tools and milestones for quality delivery of laboratory services
5. Train laboratory personnel on the M & E framework & procedures
6. Manage and use M & E data
3. Disseminate and pilot the standardized paper based systems in selected districts
4. Roll out the standardized paper based systems
5. Develop guidelines and a standardised electronic LIS with tools e.g. Registers, request forms, monthly reporting tools for all indicators
6. Procure IT Hardware and infrastructure for the operation of the electronic LIS
7. Integrate laboratory electronic LIS with the MoHCC electronic system which covers other departments e.g. Pharmacy, PMTCT, EID
8. Train laboratory staff on the Electronic LIS system
9. Pilot the standardised Electronic LIS in selected laboratories.
10. Roll out the LIS to laboratories based on the work plan
11. Provide resources to ensure connectivity of LIS

3.1.10 Laboratory Information System

Policy objective

To ensure that all levels of laboratory services have a functional and comprehensive laboratory information system that manages and disseminates data for use by all relevant stakeholders

Specific objectives

1. To strengthen paper based laboratory information systems to promote laboratory performance, quality patient care, surveillance, evidence-based medicine and planning, policy formulation and research
2. To implement an electronic Laboratory information systems

Strategic activities

1. Develop guidelines and a standardized paper based system with tools e.g. Registers, request forms, monthly reporting tools for all indicators
2. Train laboratory staff on the paper based system

3.1.11 Research, development and Collaboration

Policy objective

To promote the development of research that is relevant to the health priorities of the country

Specific objectives

1. To promote laboratory based operational research in line with priorities of the MOHCC.
2. To encourage collaborative research nationally, regionally and internationally

Specific strategic

1. Develop and disseminate research agenda/ priorities for Laboratory Services
2. Build capacity of Medical Laboratory Scientists on research methodology
3. Develop a mentorship program on operational research
4. Conduct research that responds to priority areas
5. Conduct research that complies with relevant ethical institutional and / or national review boards
6. Organize annual Laboratory research day
7. Implement research findings/ recommendations
8. Promote data utilization at facility level to inform operations and improvement
4. Revive the lab vote system at the hospitals
5. Develop costed operation plans based on the strategic plan
6. Present financial gap at least twice annually to stakeholders and partners
7. Train heads of laboratories on development of costed and timed work plans
8. Develop proposals for funding with evidence based information
9. Develop a framework for Private Public Partnerships (PPP)

3.1.12 Financing Laboratory Services**Policy objective**

To ensure provision of sufficient funding for the implementation of the laboratory services

Specific objectives

1. Develop annual work plans and budgets
2. Encourage participation of laboratory personnel in budget planning Hospital Management meetings
3. Establish cost recovery mechanisms at all levels for chargeable tests

4

STRATEGIC PLAN MATRIX (2017-2021)

Specific objectives		Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
			17	18	19	20	21		
To have a clear organizational structure with appropriate authority to coordinate and manage the provision of comprehensive health laboratory services at all levels in the country.									
To strengthen the Directorate in order to provide adequate administrative and technical oversight over laboratory services across all agencies and the private sector.	Create and recruit focal persons for the following areas: Quality Assurance, M&E/ Research and Development, ICT & LIMS.						DLS	Functional Quality Assurance, M&E/ Research and Development, ICT & LIMS units within the Laboratory Directorate	
		x							
	Support the national laboratory logistician to continue to have oversight on procurement of laboratory commodities		x	x	x		DLS and Partners	National laboratory logistician in place	
	Strengthen the role of Laboratory Technical Working Groups (TWGs)		x	x	x	x	DLS / National Microbiology Reference laboratory (NMRL)	TWGs meeting and delivering as planned	
	Provide resources and technical capacity to the appointed focal personnel at all tiers		x	x	x	x	DLS	Focal persons capacitated at all levels	
	Conduct quarterly feedback meetings with all laboratory staff and key stakeholders		x	x	x	x	DLS	Quarterly Laboratory reports	
	Conduct annual review of laboratory plans		x	x	x	x	DLS	Annual Laboratory review report	

4.2 LABORATORY TIERED NETWORK AND REFERRAL:

To provide laboratory services appropriate to each level and that meets the needs for the delivery of health services at that level

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To ensure equitable coverage and access to high quality laboratory services	Disseminate approved guidelines for the test menus for all tiers to all laboratories	x					DLS	Testing menus available and offered as defined for each level
	List commodity requirements for the test menus to assist with annual budget planning	x	x	x	x	x	DLS	Laboratory commodities budget for each year
	Approve and disseminate the harmonization and equipment standardization requirements for each level of health care	x					DLS	Standardized equipment document in use
	Procure conventional equipment and distribute according to testing complexity at each level	x	x	x	x	x	DLS and partners	Adequately equipped laboratories
	Develop and implement a plan to enhance the capacity for standardized laboratory testing	x	x	x	x	x	DLS and partners	Standardized laboratory testing plan implemented
	Increase access to laboratory services through appropriate POC diagnostics	x	x	x	x	x	DLS and partners	POCT available and accessible to appropriate areas
	Ensure appropriate deployment of skilled laboratory personnel to all levels		x	x	x	x	DLS	Adequately staff laboratories

To strengthen the specimen referral system	Design an integrated specimen and results transportation system	x						DLS and partners	Integrated sample transport system designed
	Develop effective guidelines for specimen referral and result reporting	x						DLS and partners	Referral and reporting guidelines
	Pilot the integrated specimen and results transportation system	x	x					DLS and partners	Successful specimen referral pilot
	Implement the integrated specimen and results transportation system in all the laboratories			x			x	DLS and partners	An established integrated sample referral system
	Promote rational and appropriate use of laboratory services among clinicians, laboratory practitioners, and the general public	x	x	x			x	DLS	Appropriate use of laboratory services at appropriate levels
	Support and expand the NMRL into a multi-disciplinary referral laboratory		x	x	x		x	DLS	NMRL provided specialized services in different disciplines
	Strengthen the NRL's to provide laboratory support necessary for disease surveillance, investigations and management of outbreaks	x	x	x	x		x		Enhanced NRL's preparedness to response to public health threats

4.3 LEGAL AND REGULATORY FRAMEWORKS:

To ensure registration, licensing, education and discipline in the medical laboratory professions and maintenance of quality standards for laboratories

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To ensure compliance of the laboratory profession with the requirements of the MLCSCZ.	Strengthen the capacity of laboratories to meet the requirements of regular inspection and monitoring by the MLCSCZ	x	x	x	x	x	DLS and MLCSZ	Monitoring system in place
	Support monitoring and inspection on the practice, use of IVDs and test kits including POCT	x	x	x			DLS and MLCSZ	Monitoring system in place
	Support the review of national guidelines for medical laboratory in Zimbabwe		x				DLS and MLCSZ	Updated national guidelines for medical laboratory in Zimbabwe
	Support the development of CPD points system as a prerequisite for registration for laboratory personnel		x				DLS and Lab Association	CPD point system mandated
	Support the registration of laboratory personnel by the MLCSCZ	x	x	x	x	x	MLCSZ	All laboratory personnel registered
To ensure all training institutions curricula meet the minimum standards and the evolving laboratory testing requirements	Facilitate a review of the Medical Laboratory Sciences Training program across all training institutions.	x	x				DLS, MLCSZ & Training Institutions	Revised and standardized curricula across training institutions

Specific objectives		Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
			17	18	19	20	21		
To ensure adequate availability of laboratory personnel with the appropriate skills and competencies to support the delivery of a comprehensive laboratory services at each level of health care									
To improve laboratory personnel recruitment and motivation to achieve the retention	Conduct human resources audits periodically to determine and fill staffing gaps within laboratories	x					DLS	Staffing needs documented	
	Review the staff establishments in line with new technologies and disease trends	x					DLS	Staff establishments updated	
	Define and provide incentives for staff in peripheral areas		x	x		x	DLS	Lab staff incentivized to work in peripheral areas	
	Avail training opportunities for laboratory personnel to improve skills in management and leadership		x	x		x	DLS and partners	Lab personnel with professional development	
	Support training of lower cadres (e.g SCMLT and microscopists) for deployment to lower levels		x	x		x	DLS and partners; training institutions	Lower cadres available to man lab facilities	
To develop a career path for Laboratory professionals	Support the establishment of a laboratory professional association to conduct Continuous Professional Development (CPD) point system	x					DLS and Lab Association	Functional Lab Association in place	
	Design and develop a career path for laboratory staff including an agreed internship period in lower level laboratories	x					DLS	Carrier path designed and adopted	
	Implement and evaluate CPD program and continually implement improvements	x	x	x		x	Lab association	CPD program in place	
To strengthen and standardize pre-service training programs for laboratory personnel.	Support review and implementation of standardized curricula by training institutions to match the evolving laboratory testing needs	x	x				DLS, partners and training institutions	Updated and standardized curricula in training institutes	

4.5 LABORATORY EQUIPMENT:

To ensure that laboratories are adequately and appropriately equipped in order to meet requirements of the service delivery system

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To harmonize and standardize equipment by level of testing	Launch and disseminate harmonization and standardization policy on equipment and personnel to facilities and stakeholders	x					DLS	Harmonization guidelines launched and widely distributed
	Operationalize harmonization and standardization of equipment (redistribute equipment if necessary)		x	x		x	DLS and partners	Harmonization guidelines being used
	Deploy all approved conventional equipment according to national guidelines						DLS and partners	Equipment placement following the Harmonization and standardization guidelines
To ensure there is appropriate technology and equipment in place at all levels								
	Develop an equipment replacement plan	x					DLS	Equipment replacement plan
	Mobilize resources for procurement of equipment		x	x	x	x	DLS	Funding secured for replacement of equipment
	Dispose obsolete equipment according to the National guidelines	x	x	x	x	x	DLS	Obsolete equipment disposed
To ensure all equipment have service and maintenance plan	Review guidelines to ensure that every equipment that is procured has a service and maintenance plan	x					DLS and partners	All equipment with service plans

	Strengthen coordination between DLS, partners and other MOH programs on laboratory equipment procurement	x	x	x	x	x	x	DLS and partners	All donated equipment follow Harmonization guidelines and have service plans
	Mobilize resources for servicing and maintaining existing equipment	x	x	x	x	x	x	DLS	Existing equipment have service plans
To deploy all POC devices according to national guidelines	Coordinate the evaluation of all POC devices	x	x	x	x	x	x	DLS	All POCs evaluated according to National guidelines
	Disseminate and operationalize the POC testing guidelines	x						DLS and partners	POC guidelines disseminated
	Deploy POCs according to the POC guidelines	x	x	x	x	x	x	DLS and partners	All POCs evaluated deployed according to National guidelines

4.6 COMMODITIES:									
To ensure uninterrupted supply of laboratory reagents and consumables at all levels of health care									
Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results	
		17	18	19	20	21			
To strengthen management of laboratory commodities at the facility level	Evaluate the laboratory logistics system	x					DLS and partners	ZiLaCoDS evaluated and recommendations available for implementation	
	Review annually standard operating procedures and training curriculums for the laboratory logistics system	x	x	x	x	x	DLS and partners	SOPs and Curricula reviewed and updated	
	Train new and existing staff (refresher) on the laboratory logistics system	x	x	x	x	x	DLS and partners	Refresher training conducted	
	Support ongoing data collection and analysis to inform laboratory supply chain decisions	x	x	x	x	x	DLS and partners	Supply chain data analyzed and available for decision making	
	Maintain the existing laboratory logistics unit which integrates existing programs	x	x	x	x	x	DLS	Lab Logistic Unit functional	
	Monitor and support the new laboratory logistics system with quarterly reviews	x	x	x	x	x	DLS and partners	Quarterly M&E review reports	
To harmonize procurement and distribution for integrated laboratory services	Provide product specifications as and when required by procurement agencies	x	x	x	x	x	DLS - Logistics unit	Specifications available	
	Strengthen the technical working group on supply chain management	x					DLS	TWG functional	
	Conduct a forecasting and quantification of laboratory reagents and supplies at least twice a year	x	x	x	x	x	DLS - Logistics Unit	Update Product Quantification;	
	Maintain and monitor a national pipeline database including timeliness	x	x	x	x	x	DLS - Logistics Unit	Updated pipeline available	

	Monitor the supplier performance and quality of deliveries	x	x	X	x	X	DLS	Supplier performance documented and used for to guide future procurements
To provide pre-service supply chain management training for laboratory undergraduates/trainees	Develop supply chain curriculum for laboratory training institutions	x						Curriculum developed
To computerize the Logistics Management Information System (LMIS).	Design and develop a computerized LMIS	x	x					Computerized LMIS developed
	Implement and maintain the computerized LMIS	x	x	x	x		X	LIMS functional and updated
To facilitate and implement laboratory guidelines for environmentally safe disposal of laboratory commodities	Develop laboratory guidelines (including SOPs) for disposal of commodities	x						National guidelines and SOPs for disposal of lab commodities developed
	Facilitate disposal of expired laboratory commodities using government approved procedure at least once a year	x	x	x	x		X	Reagent disposal done

4.7 INFRASTRUCTURE:								
To ensure all laboratories meet minimum infrastructural requirements as defined by National Guidelines for Medical Laboratories								
Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To ensure infrastructure is available to match scope of testing at every health institution.	Conduct National Assessment on the state of laboratory infrastructure using the minimum set guidelines	x					DLS & MLCSCZ	Assessment Reports
	Develop a work-plan with a list of prioritized labs for the upgrading of infrastructure	x					DLS	Work-plan developed
	Source funding for the upgrading of the laboratory facilities	x	x	x	x	X	DLS	Funding available for upgrading of facilities
	Work with MoPWD department to review specifications for renovation/construction of public health laboratories to address identified infrastructural gaps	x					DLS & MoPWD	Specifications for renovation or construction of laboratories
To ensure that all laboratory infrastructures are routinely inspected for compliance to National Guidelines for Medical Laboratories.	Develop a schedule for inspection to ensure that all the laboratories are inspected within the 5 years using a standardized checklist.			x			DLS & MLCSCZ	Assessment Schedule
	Conduct assessments according to schedule			x			DLS & MLCSCZ	Assessment Reports

4.7 QUALITY MANAGEMENT SYSTEM:							
To provide quality laboratory services that meet international standards of practice.							
Specific objectives	Activities	Timeframe (2000)				Responsible partners	Outcomes / Planned results
		17	18	19	20		
To ensure there is a Quality Assurance Unit for the Laboratory Directorate to oversee quality management programs.	Define TOR for Quality Assurance Unit						TOR for QA Unit
	Recruit the Quality Assurance Coordinator and team for the Laboratory Directorate to oversee quality management programs.	x					QA Coordinator and Team recruited
To establish a national laboratory certification authority to support certification and accreditation of laboratories	Establish a TWG to spearhead the establishment of a national laboratory certification authority	x					TWG established
	Set up the national laboratory certification authority for laboratories and Point of Care testing sites		x				National laboratory certification authority established
	Conduct national certification assessments for all laboratories		x	x	x		Certification / Assessment reports
	Accredit National Reference laboratories to international standards						All Reference labs accredited (NMRL, National TB Lab, Polio lab)

To facilitate laboratories participate in Quality Improvement programs	Adopt a WHO recommended QMS Training Program for lab quality improvement and meet the requirements of Zimbabwe Medical Laboratory Guidelines.	x								DLS	A QMS training program adopted
	Establish and refresh a national pool of trainers.	x								DLS & funding partners	Pool of trainers trained and refreshed
	Roll out trainings using the adopted QMS training program	x	x	x	x	x	x	x	x	QA department & funding partners	Lab staff trained
	Develop national QMS documents (policies, SOPs and forms) for adaptation by laboratories	x								QA Unit	National QMS documents developed
	Designate and train staff to be responsible for implementation of quality management in every laboratory (including safety)	x	x	x	x	x	x	x	x	DLS	Quality Officer & Safety Officer designated
To ensure all laboratories participate in PT schemes and/ or inter-laboratory comparison / IQC for all testing done including Point of Care.	Allocate funding for PT participation for all labs & Point-of-Care testing sites.	x								DLS & funding partners	Funding for PT participation sourced
	Procure IQC panels for all disciplines for all laboratories	x	x	x	x	x	x	x	x	DLS & funding partners	IQC panels for all disciplines
	Register and ensure participation of laboratories in PT schemes and/ or inter-laboratory comparison recognized by the MLCSZ	x								Laboratories and POCT	All Laboratories and POCT registered on a PT programs

4.8 BIOSAFETY:									
To promote safe and secure laboratory practices at all levels									
Specific objectives	Activities	Timeframe (2000)				Responsible partners	Outcomes / Planned results		
		17	18	19	20			21	
To ensure all facilities have appropriate space and safe environment for lab personnel, clients, the general public and environment	Disseminate the minimum standards for appropriate space and safe environment for health personnel, clients, the general public and environment and framework for disposal of biological and bio-hazard material.	x					DLS &MLCSZ	Minimum standards set	
	Conduct bio risk assessments in all laboratories to ensure they meet the minimum biosafety and biosecurity standards.	x	x	x	x	x	DLS, Council & funding partner	Assessment reports	
	Develop and implement a plan to refurbish/upgrade labs to meet minimum biosafety and biosecurity standards.	x	x	x	x	x	DLS, Council & funding partner	Plan developed & implemented	
To ensure lab workers are trained in Biosafety and Biosecurity	Adopt a WHO recommended Biosafety Training Curriculum including IATA Specimen transportation regulations	x					DLS, Council & funding partner	Curriculum adopted	
	Establish a pool of Biosafety and Biosecurity trainers	x	x	x	x	x	DLS, Council & funding partner	Pool of trainers trained	
	Train and sensitize laboratory personnel in biosafety and biosecurity	x	x	x	x	x	DLS, Council & funding partner	Laboratorians trained	
To ensure national reference laboratories have capacity and access control systems to handle highly infectious organisms and meet nationally acceptable containment standards.	Adopt and implement the WHO Containment Standards						DLS & Funding Partners	Standards adopted and implemented	

	Develop and disseminate a national list of dangerous chemicals, infectious agents and other dangerous materials to facilities and personnel	x							National list of dangerous pathogens available
	Maintain inventory system to account for infectious and dangerous organisms		x	x	x	x			Inventory system in place

4.9 LABORATORY INFORMATION SYSTEM:

To ensure that all levels of laboratory services have a functional and comprehensive laboratory information system that manages and disseminates data for use by all relevant stakeholders

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To strengthen paper based laboratory information systems to promote laboratory performance, quality patient care, surveillance, evidence-based medicine and planning, policy formulation and research.	Develop guidelines and a standardized paper based system with tools e.g. Registers, request forms, monthly reporting tools for all indicators.	x					DLS & Funding Partners	Paper based system and necessary tools.
	Train laboratory staff on the paper based system	x	x	x	x	X	DLS & Funding Partners	Trained laboratory staff
	Disseminate and pilot the standardized paper based systems in selected districts.	x					DLS & Funding Partners	Results of the pilot study
	Roll out the standardized paper based systems		x				DLS & Funding Partners	Functional Lab Information system

To implement an electronic Laboratory information systems	Develop guidelines and a standardised electronic LIS with tools e.g. Registers, request forms, monthly reporting tools for all indicators.				x				DLS & Funding Partners	Paper based system and necessary tools.
	Procure IT Hardware and infrastructure for the operation of the electronic LIS				x				DLS & Funding Partners	IT Hardware & Infrastructure
	Integrate laboratory electronic LIS with the MoHCC electronic system which covers other departments e.g. Pharmacy, PMTCT, EID				x		x		DLS & Funding Partners	Integrated system
	Train laboratory staff on the Electronic LIS system				x		x	X	DLS & Funding Partners	Trained laboratory staff
	Pilot the standardised Electronic LIS in selected laboratories.				x				DLS & Funding Partners	Results of the pilot study
	Roll out the LIS to laboratories based on the work plan						x		DLS & Funding Partners	Laboratories using Electronic LIS.
	Provide resources to ensure connectivity of LIS						x		DLS & Funding Partners	Electronic reports

4.10. RESEARCH, DEVELOPMENT AND COLLABORATION:

To promote the development of research that is relevant to the health priorities of the country

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To promote laboratory based operational research in line with priorities of the MOHCC.	Develop and disseminate research agenda/priorities for Laboratory Services	x					DLS	Research agenda disseminated
	Build capacity of Medical Laboratory Scientists on research methodology	x	x	x	x	X	DLS and partners	Lab personnel conducting research
	Develop a mentorship program on operational research	x					DLS and partners	Research mentorship program in place
	Conduct research that responds to priority areas	x	x	x	x	X	Lab personnel	Research and publications
	Conduct research that complies with relevant ethical institutional and / or national review boards	x	x	x		X	Lab personnel	Ethical approved research
	Organize annual Laboratory research day	x	x	x	x	X	DLS and partners	Promotion of research among lab personnel
	Implement research findings/ recommendations	x	x	x	x	X	DLS	Evidence based decision making
	Promote data utilization at facility level to inform operations and improvement	x	x	x	x	X	DLS	Utilization of lab data at all levels
To encourage collaborative research nationally, regionally and internationally	Establish collaborations with Universities and research institutes	x	x	x	x	X	DLS	Collaborative research being conducted

4.11 MONITORING and Evaluation:							
To monitor and evaluate the quality of the laboratory services using clearly defined laboratory indicators							
Specific objectives	Activities	Timeframe (2000)				Responsible partners	Outcomes / Planned results
		17	18	19	20		
To develop and implement M & E system to assess performance of the laboratory services	Develop a laboratory M & E framework in alignment with the National M & E plan (indicators, reporting, sources of data, feedback mechanism)	x				DLS	Laboratory M & E framework in place
	Appoint/hire an M & E coordinator within DLS	x				DLS	M & E coordinator recruited
	Establish and implement detailed M & E procedures	x				DLS	M & E procedures
	Develop measurable indicators, tools and milestones for quality delivery of laboratory services	x				DLS	Clear Lab indicators
	Train laboratory personnel on the M & E framework & procedures		x			DLS and partner	Trained lab staff on M & E
	Manage and use M & E data		x	x	x	DLS	Improved performance of Lab services

4.11 FINANCING Laboratory Services:

To ensure provision of sufficient funding for the implementation of the laboratory services

Specific objectives	Activities	Timeframe (2000)					Responsible partners	Outcomes / Planned results
		17	18	19	20	21		
To ensure resource mobilization for expansion of laboratory services.	Develop annual work plans and budgets	x	x	x	x	X	DLS	Annual work plans and budgets
	Encourage participation of laboratory personnel in budget planning Hospital Management meetings	x	x	x	x	X	DLS	Increased lab allocation within hospital budget
	Establish cost recovery mechanisms at lower level(provincial downwards) for chargeable tests	x	x	x	x	X	DLS	Increase lab budget
	Revive the lab vote system at the hospitals		x				DLS	Lab vote system in place
	Develop costed operation plans based on the strategic plan	x	x	x	x	X	DLS and partners	Costed operation plans
	Present financial gap at least twice annually to stakeholders and partners	x	x	x	x	X	DLS	Partner support to lab budget
	Train heads of laboratories on development of costed and timed work plans	x					DLS and partners	Trained lab managers on planning and budgeting
	Develop proposals for funding with evidence based information	x	x	x	x	X	DLS and partners	Funded proposals
	Develop a framework for Private Public Partnerships (PPP)	x	x				DLS and partners	
	Explore opportunities for Private Public Partnership (PPP)	x	x	x	x	X	DLS	PPP in place

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PRIORITY STRATEGIC ACTIVITIES

1. Increase capacity of the Laboratory Directorate to coordinate Lab Services in the country through creating and recruiting focal persons for the following areas: Quality Assurance, M&E/ Research and Development, ICT & LIMS.
2. Harmonisation and standardisation of laboratory equipment
3. Service and maintenance plans for all laboratory equipment
4. Implementing the integrated sample referral system
5. Accreditation of National Reference Laboratories
6. Clearly defining laboratory indicators and using them to monitor performance of the Laboratory Services



Government of Zimbabwe