INVITATION FOR EXPRESSION OF INTEREST (EOI)

The Ministry of Health (MoH) intends to establish a national, standardized laboratory equipment program under a Reagent Rental Agreement model, with ZAMMSA playing a central procurement and coordination role. The program aims to improve diagnostic capacity, equipment uptime, workforce skills, and laboratory data connectivity across Zambia's public health facilities.

As indicated the purpose of the initiative seeks to strengthen laboratory diagnostic services nationwide by:

i. Supplying and delivering appropriate laboratory analysers.
ii. Installing and commissioning equipment.
iii. Training laboratory personnel.
iv. Providing maintenance and technical support.
v. Integrating equipment with national health information systems.

EOI No: TBA

ANNEXURE 1

EXPRESSION OF INTEREST
Supply, Installation, and Maintenance of Laboratory Analysers on a Reagent Rental Agreement (RRA) for Public Laboratories in Zambia

Tender Reference:	TBA
Issuing Entity:	ZAMMSA
Date of Issue:	1st October, 2026
Closing Date and Time:	**15th October, 2026**

Executive Summary

The Ministry of Health (MoH), Republic of Zambia, seeks to strengthen access to quality diagnostic services across all levels of public health care. To achieve this, an inventory of public health facilities was conducted, assessing facility location, laboratory tier level, and service context across Provinces and Districts. The assessment identified the need to rationalize the distribution of Laboratory Equipment to ensure fit-for-purpose deployment — from Rural Health Centres providing essential diagnostics to tertiary referral hospitals delivering advanced testing.

This Expression of Interest (EOI) invites qualified vendors to partner in the supply, placement, and lifecycle management of laboratory analysers across the national health facility network, under a Reagent Rental Agreement (RRA) model. Proposed solutions must demonstrate alignment with facility service levels, sustainability of operations, and the ability to support continuity of diagnostic services in diverse resource settings.

The proposed engagement covers five categories of laboratory analyser, with a total requirement of 258 instruments across at least four vendors per category. The work is structured around four strategic objectives:

- Supply and deliver ISO-certified, tier-appropriate analysers to Health Centres and Level 1–3 Hospitals nationwide.
- Install, commission, and validate Equipment at each facility to ensure operational readiness.
- Build the capacity of laboratory staff through structured training, Training of Trainers (ToT), and ongoing mentorship.
- Provide comprehensive maintenance and technical support for the full contract duration, underpinned by a Service Level Agreement (SLA).

All Equipment must be MoH-approved through the Laboratory Technical Working Group (TWG), ISO-compliant, operable under Zambian conditions (temperature, humidity, and power fluctuations), and compatible with current LIS and SmartCare systems.

This EOI represents an opportunity to contribute to a standardized, sustainable, and data-connected national laboratory network that supports clinical decision-making and programme monitoring across Zambia.

1. Introduction

The Pathology and Laboratory Services unit under the Ministry of Health, leads the national strategy for laboratory diagnostics and service delivery. This strategy relies on the timely availability of functional, calibrated, and well-maintained laboratory Equipment at all tiers of care from community health centres to national referral hospitals to guide clinical management, monitor disease trends, and support programme decision-making.

To respond to persistent gaps in laboratory Equipment availability and functionality, the MoH conducted a nationwide facility inventory assessing the location, tier level, and diagnostic service needs of public health facilities across all provinces. The assessment revealed a need to both rationalize existing Equipment and deploy fit-for-purpose solutions to underserved facilities, with particular attention to the sustainability of operations and the ability of Equipment to perform reliably in resource-limited settings.

Recognising the need for a sustainable mechanism to address these gaps, the MoH has identified the Reagent Rental Agreement (RRA) model as the preferred approach to Equipment provision. Under this model, suppliers install and maintain laboratory Equipment, while the Ministry of Health procures reagents and consumables over an agreed period through a reagent supply framework contract with ZAMMSA. This model ensures functional Equipment, reduces service interruptions, replaces obsolete platforms, and promotes standardization and efficiency across the national laboratory network.

2. Problem Statement

Stakeholder consultations and the national facility inventory identified several persistent challenges that undermine laboratory service delivery across Zambia:

1. **Misalignment of equipment and facility tier:** Many facilities operate Equipment not suited to their service level, sample volume, or infrastructure context, resulting in underutilisation, frequent breakdowns, or diagnostic gaps.
2. **Ageing and obsolete Equipment:** A significant proportion of existing laboratory analysers are beyond their operational lifespan, with no structured replacement or maintenance programme in place.

3. **Insufficient maintenance and technical support:** Breakdown response times are slow, spare parts are often unavailable in-country, and preventive maintenance is inconsistent, leading to extended Equipment downtime and disruption of diagnostic services.

4. **Weak training and capacity:** High staff turnover and insufficient operator training result in Equipment misuse, poor quality control, and inability to leverage analyser functionality for clinical or programmatic purposes.

5. **Fragmented data systems:** Laboratory results are frequently recorded in silos, with limited integration into national health information systems (SmartCare, DHIS2, LIS), constraining programme monitoring, clinical decision support, and disease surveillance.

Addressing these challenges through a coordinated, lifecycle-based engagement with qualified vendors is essential to ensuring the MoH can deliver consistent, high-quality diagnostic services across the national health facility network.

3. Solution

To address the identified diagnostic service gaps, the MoH proposes to engage qualified vendors under a Reagent Rental Agreement (RRA) model to deliver a comprehensive package of Equipment supply, installation, training, maintenance, and data integration services. This engagement will involve:

1. **Deploying fit-for-purpose analysers across facility tiers:** New, ISO-certified Equipment appropriate to each facility's service level and operational context, from compact POC devices at health centres to high-throughput platforms at tertiary hospitals.

2. **Ensuring operational readiness through structured commissioning:** Pre-installation site assessments, installation in accordance with manufacturer specifications, and certified validation before handover at each facility.

3. **Building sustainable laboratory workforce capacity:** On-site operator training at installation, a Training of Trainers (ToT) programme for senior staff, and annual (physical or virtual) refresher training throughout the contract period.

4. **Providing lifecycle maintenance and technical support:** Scheduled preventive maintenance, rapid corrective maintenance response governed by SLAs, in-country spare parts stock, and a dedicated helpdesk.

5. **Integrating analysers into national health information systems:** Mandatory integration with SmartCare, DHIS2, and the national LIS at commissioning, enabling real-time data transmission to support programme reporting and clinical decision-making.

Vendors will be engaged and guided by the MoH Laboratory TWG throughout implementation, ensuring that proposed solutions align with national laboratory policies, quality management standards, and the strategic objectives of the national health laboratory programme.

4. Priority Objectives for Diagnostic Service Strengthening

The following objectives summarise the key areas where vendor engagement will directly address operational and diagnostic service challenges. Each reflects a specific need identified through the national facility inventory and consultations with MoH and laboratory stakeholders.

Objective	Challenge	Proposed Solution	Key Benefits
Supply & Delivery of Analyzers	Facilities lack fit-for-purpose Equipment matched to tier level	Supply new, ISO-certified analyzers appropriate for Health Centres through Level 3 Hospitals under a Reagent Rental Agreement	Closes diagnostic gaps; ensures right-sized technology at each care level
Installation & Site Commissioning	Infrastructure unreadiness causes Equipment failures post-delivery	Pre-installation assessments, site preparation support, and certified commissioning before handover	Reduces post-installation downtime; ensures facilities are operationally ready
Training & Capacity Building	High staff turnover and inconsistent user training undermine Equipment utilisation	On-site training at installation, ToT for senior staff, annual refreshers, and competency assessments	Builds sustainable local capacity; reduces Equipment misuse and maintenance burden
Maintenance & Technical Support	Equipment breakdowns without timely repair disrupt diagnostic services	Preventive and corrective maintenance with defined SLAs, in-country spare parts stock, and a dedicated helpdesk	Maximises uptime; protects government investment over the contract period
Data Connectivity & Integration	Siloed test results limit programme visibility and clinical decision support	Mandatory integration with SmartCare, DHIS2, and national LIS at commissioning; real-time data transmission	Strengthens surveillance, reporting, and data-driven resource allocation

5. Proposed Scope of Work

Vendors are invited to propose end-to-end provision and lifecycle management of laboratory analysers for Health Centres and Level 1–3 Hospitals. The successful vendor per category shall be responsible for the following components across a three-year contract period.

Analyser Type	No. of Vendors	No. of Instruments
Haematology Analysers	4	127
Chemistry Analysers (Without ISE)	4	81
Electrolyte Analysers	4	15
Chemiluminescence Immunoassay Analysers	4	15
CD4 Analysers	4	20

Objective 1: Supply and Delivery

Vendors shall supply new, ISO-certified laboratory analysers appropriate for the designated level of care as specified in the Technical Specifications (Section 8). All Equipment must meet WHO prequalification and/or relevant ISO standards and be suitable for use in resource-limited settings.

- **Equipment supply:** New, compliant, and internationally certified analysers matched to facility tier.
- **Standards compliance:** WHO prequalification and/or ISO 13485 and IVD Directive compliance; suitable for resource-limited settings.
- **Consumables and accessories:** Provision of all required accessories, startup consumable kits (minimum 3 months' supply), reagents, calibration materials, and spare parts for full initial functionality.
- **Delivery terms:** DDP (Delivered Duty Paid) to all designated health facilities nationwide, including transportation, insurance, customs clearance, and last-mile handling.

- **Placement sites:** The specific facility placement site(s) for each analyser category shall be clearly identified in the solicitation document.
- **Supply model:** Vendors must clearly state whether their proposal is based on a Reagent Rental Agreement (RRA).

Expected Outputs: Equipment delivered, installed, and operational at all designated health facilities; signed delivery receipts and packing lists per facility.

Objective 2: Installation and Commissioning

The vendor shall conduct pre-installation site assessments and install all analysers in accordance with manufacturer specifications and national laboratory standards. Equipment shall not be handed over until commissioning is certified by both vendor and client representative.

- Pre-installation site assessments at all designated facilities to confirm infrastructure readiness (power, water, space, ventilation, biosafety). A written site assessment report must be submitted to the client within one week of each visit.
- Site preparation support: Advise on and support minor modifications required for safe Equipment operation.
- Backup power: Ensure proper setup of UPS or compatible power conditioners where mains power is unreliable.
- Calibration, validation, and verification: Completed prior to handover at each site with signed commissioning certificates.
- Quality control procedures: Demonstrate Equipment performance against pre-defined acceptance criteria agreed at contract commencement.
- Alignment with ISO 15189 and national quality assurance programmes.

Expected Outputs: Pre-installation site assessment reports (within 1 week of each visit); installation and commissioning certificates signed by vendor and client representative.

Objective 3: Training and Capacity Building

Training shall be provided at each facility immediately following commissioning. All training costs, including travel, accommodation, and materials, shall be borne by the vendor unless otherwise agreed in writing.

- **Core training topics:** Equipment operation; preventive maintenance and basic troubleshooting; quality control and assurance; biosafety and waste management; data entry and connectivity.
- **Training of Trainers (ToT):** Delivered at the regional level for selected senior laboratory staff to support long-term sustainability.
- User manuals, SOPs, and illustrated job aids in English and, where applicable, local languages — all materials to be left at the facility.
- **Refresher training:** At least once per year per facility during the contract period.
- Post-training competency assessments: Conducted for all trained staff; attendance registers and competency results submitted to the client within five working days of each training event.

Expected Outputs: Training agenda and materials (slides, user guides, job aids); training reports including attendance registers and competency assessment results (within 5 working days of each event).

Objective 4: Maintenance and Technical Support

The vendor shall provide comprehensive maintenance services for the full duration of the contract, governed by a Service Level Agreement (SLA).

- **Preventive maintenance (PM):** Scheduled servicing at minimum twice per year per analyser, in accordance with manufacturer recommendations. A PM schedule shall be submitted to the client at the start of each contract year.
- **Corrective maintenance (CM):** Breakdown response and repair in accordance with the response and resolution times specified in the SLA.
- **Spare parts:** In-country stock of fast-moving spare parts and consumables sufficient to meet agreed response times. A spare parts inventory list must be provided at contract commencement and updated quarterly.
- **Service logbook:** A physical or digital logbook for each analyser recording date, nature of service, parts replaced, and technician name and signature — available to the client on request.
- **Helpdesk:** A dedicated technical support hotline or ticketing system operational Monday–Friday 08:00–17:00, with out-of-hours emergency contact details provided.
- **Decommissioning:** At the end of the contract period, or upon replacement or removal of any analyser, decommissioning and removal costs shall be borne by the vendor/service provider.
- **Periodic review:** ZAMMSA shall conduct periodic (at least annual) cost-benefit analysis of the Reagent Rental Agreement to ensure continued feasibility and value for money throughout the contract period.

Expected Outputs: Quarterly maintenance and service performance reports including: uptime percentage per analyser, number of breakdowns, average resolution time, and parts replaced; annual programme review report.

Objective 5: Data Connectivity and Integration

All analysers must be integrated with national health information systems at the time of commissioning to enable real-time programme reporting, surveillance, and clinical decision support.

- **Mandatory integrations:** SmartCare, DHIS2, and the nationally designated Laboratory Information System (LIS). Integration must be operational at commissioning.
- **Data format:** HL7 or HL7 FHIR standards, or the data format specified by the national LIS. Vendor must provide documentation of supported interfaces.
- **Middleware:** If required to bridge the analyser and the LIS, the vendor must state whether this is included, its cost, and ongoing licensing and support requirements.
- **Real-time transmission:** Analysers must support real-time or near-real-time data transmission.
- **Data security:** All data handling must comply with national data protection legislation and applicable health data confidentiality standards. A data security statement must be submitted as part of the EOI response.

Expected Outputs: Confirmed data connectivity at each facility at commissioning; data security statement submitted with EOI response; documentation of supported interfaces.

6. Contract Duration

The contract duration shall be three (3) years, with an option for renewal subject to satisfactory performance evaluation by the MoH.

7. Mandatory Eligibility Requirements

All respondents must satisfy the following eligibility requirements. Non-compliance with any mandatory criterion will result in disqualification.

Requirement	Details
MoH Laboratory TWG Approval	In-country evaluation and approval through the MOH Laboratory TWG. Refer to Guidelines on the MoH website.
Valid ZRA Tax Clearance Certificate	Current and valid at time of submission
Legal Registration in Zambia	Valid certificate of incorporation/registration to operate in Zambia
ISO and Regulatory Compliance	Compliance with ISO 13485, ISO 15189, and IVD Directive as applicable

7.1 Information to be Submitted

Interested firms are required to submit the following information:

a) Company profile, including the nature and duration of the firm's business;

b) Certificate of Incorporation/Registration;

c) Valid Tax Clearance Certificate, where applicable;

d) Relevant licenses, registrations and certificates;

e) Details of similar contracts/assignments undertaken during the last [insert number] years, including the name of the client, contract value, scope and period of implementation;

f) Evidence of satisfactory completion/performance of similar assignments, where applicable;

g) Details of key technical personnel and/or resources available to undertake the requirement; and

h) Any other information demonstrating the firm's suitability and capability to undertake the assignment.

8. Technical Specifications

The following specifications outline the minimum technical requirements for each analyser category by facility level. All proposed Equipment must meet or exceed these requirements.

8.1 Haematology Analysers

Facility Level	Type / Model	Throughput (tests/hr)	Reagent System	Key Specifications	Data Management
Health Centre	Compact benchtop 3-part differential (semi-automated)	20–40	Open or closed; max 3 cocktail reagents	Robust; low power ≤150 VA; operable on solar/battery; 16–34°C; built-in printer	Basic onboard storage or USB export
Level 1 Hospital	Fully automated 5-part differential	40–60	Closed or open; barcode reagent ID; max 3 cocktail reagents	Robust; surge-protected; 90–240 V AC; abnormal cell flagging; built-in printer	LIS connectivity preferred
Level 2 Hospital	Fully automated 5-part differential with optional reticulocyte module	60–100	Open or closed with barcode reagent ID	Robust; UPS backup; 90–240 V AC; auto-sampler; abnormal cell flagging	LIS integration and data export
Level 3 Hospital (Tertiary/Referral)	High-throughput 5-part differential with optional reticulocyte module	100+	Fully closed; automatic reagent recognition	Dedicated power line with generator and UPS; 15–30°C; continuous loading; QC traceability	Full LIS/HIS integration; remote access; quality audit trail

8.2 Chemistry Analysers (Without ISE)

Parameter	Health Centres	Level 1: District Hospitals	Level 2: General /Provincial	Level 3: Tertiary /Teaching	Notes
Type	Portable/POC Analyzer	Compact Bench-Top	Medium-Throughput	High-Throughput	—
Throughput (tests/hr)	10	50	100	300+	Without ISE module installed
Analysis Method	Spectrophotometry (colorimetry and turbidimetry)	Spectrophotometry (colorimetry and turbidimetry)	Spectrophotometry (colorimetry and turbidimetry)	Spectrophotometry (colorimetry and turbidimetry)	—
Sample Type	Serum, plasma, urine	Serum, plasma, urine, CSF, homogeneous fluids	Serum, plasma, urine, CSF, homogeneous fluids	Serum, plasma, urine, CSF, homogeneous fluids	—
Power	Battery or solar compatible	220–240V AC, UPS backup	220–240V AC, stabilizer	220–240V AC, stabilizer	—
Data Management	USB / Bluetooth	LIS/HIS/SmartCare compatible	LIS/HIS/SmartCare compatible	LIS/HIS/SmartCare compatible	—
Training Required	User training at installation	User training at installation	User training + advanced training	User training + advanced + data integration training	—

8.3 Electrolyte Analysers

Electrolyte analysers are not required at Health Centre level. Requirements for Level 1–3 facilities are as follows: Level 1 (Compact Bench-Top, 60 tests/hr, Na+/K+/Cl-/pH/Ca2+); Level 2 (Compact Bench-Top, 60 tests/hr, same analytes); Level 3 (High-Throughput Flow, 80 tests/hr, same analytes). All levels require potentiometry with direct/indirect ISE module; 220–240V AC with stabilizer; LIS/HIS/SmartCare compatibility; and documented user training with advanced and data integration training for Level 3.

8.4 Chemiluminescence Immunoassay (CLIA) Analysers

CLIA analysers are not required at Health Centre level. Level 1 requires semi/fully automated CLIA, 50–150 tests/hr, covering routine hormones and cardiac/tumour markers. Level 2 requires fully automated random-access CLIA, 100–300 tests/hr, expanded endocrine/oncology/cardiac/infectious markers. Level 3 requires high-throughput modular CLIA, 300+ tests/hr, full specialty and research assay menu. All levels require 220–240V AC (UPS at Level 1; stabilizer at Levels 2–3), LIS/HIS/SmartCare integration, and documented user training with progressive advanced requirements at higher levels.

8.5 CD4 Analysers

Health Centres require portable/POC CD4 devices (5–10 tests/hr; whole blood finger prick or venous; battery or solar compatible; cartridge-based reagents; USB/Bluetooth connectivity). Level 1 requires compact bench-top CD4 (20–50 tests/hr; venous whole blood; 220–240V AC with UPS; liquid reagents; USB/LAN). Level 2 requires medium-throughput CD4 (100–200 tests/hr; 220–240V AC; LAN/LIS compatible). Level 3 requires high-throughput flow cytometer (300+ tests/hr; LIS/HIS/SmartCare compatible; full LIS integration). Training requirements escalate from user training at installation (Health Centre/Level 1) to advanced and data integration training at Level 3.

9. Bid Evaluation Criteria

Evaluation of submitted EOIs will be conducted by the ZAMMSA procurement committee based on the following criteria:

- **Eligibility compliance:** Satisfaction of all mandatory eligibility requirements listed in Section 7.
- **Technical responsiveness:** Alignment of proposed Equipment with the Technical Specifications in Section 8; evidence of ISO and WHO prequalification certification.
- **Service capacity:** Demonstrated ability to deliver, install, and maintain Equipment across all designated facilities, including evidence of in-country technical support infrastructure.
- **Local support and supply chain:** Availability of in-country spare parts stock, local service engineers, and responsive helpdesk capability.
- **Cost-effectiveness:** Value for money across the full cost of supply, reagent rental, maintenance, and training over the contract period.
- **Data integration capability:** Demonstrated ability to integrate with SmartCare, DHIS2, and the national LIS; evidence of previous integrations in similar settings.

10. Evaluation and Shortlisting

Expressions of Interest will be evaluated based on the information submitted, including the firm's eligibility, relevant experience, technical capacity and demonstrated ability to undertake the requirement.

Only firms that meet the specified requirements and are shortlisted, where applicable, may be invited to participate in the subsequent procurement process.

11. Important Notice

Submission of an Expression of Interest does not constitute a contract, an invitation to submit a bid, or a commitment by ZAMMSA to award a contract to any firm.

ZAMMSA reserves the right to accept or reject any EOI in accordance with applicable procurement laws and regulations.

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