LabVoice

Issue 01
Amplifying the Pulse of Diagnostics

Diagnostics at the Core

INSIDE THE NEWSLETTER:

Editor-in-Chief's Note:
Welcome to the Pulse of Diagnostics in Africa!

Welcome to the very first edition of LabVoice Newsletter —where the spotlight shines bright on diagnostics!

Let's be honest—diagnostics are no longer the quiet backstage crew of healthcare. They've stepped boldly into the spotlight, leading the charge in treatment decisions, disease surveillance, outbreak response, and even health equity.

In this issue, we're turning up the volume on the stories, innovations, and people who are transforming the diagnostic landscape across Africa.

So, what's inside? A lot of amazing stuff!

🔬 Curious about how Artificial Intelligence is revolutionizing diagnostics across Africa? We've got that.

🌍 Wondering how advocacy can turn policy into action and labs into lifelines? We've covered it.

📦 Want to see how diagnostics are reaching the last mile—right to the heart of the community in Burkina Faso? It's in here.

We are also thrilled to spotlight a powerful new partnership with Roche through the recently launched Project LEAD—and welcome Molbio and Informa as the newest members of the ASLM corporate family! Yes, find out how you can be part of the cool table with ASLM Membership program. And for our ASLM members—your voices, stories, and impact are front and center. You'll meet some of your peers and see just how far membership can take you. This isn't just a newsletter—it's a movement. It's a platform to celebrate, connect, and grow the diagnostic community across Africa and beyond.

So grab your cup of tea or cofee settle in, and enjoy the read.

Nelly Rwenji
Editor-in-Chief, LabVoice

Building the Diagnostic Engine for UHC:

Advancing the Diagnostic Agenda in Africa

Nqobile Ndlovu,
ASLM CEO

Universal Health Coverage (UHC) means that all people and communities can access the health services they need without experiencing financial hardship. The goal is to ensure everyone can obtain the care they need, when and where they need it, without facing financial barriers[1]. Embedding diagnostics in UHC agenda is therefore critical to ensure diagnostic services are available at the primary healthcare level, so patients can receive timely and accurate diagnoses close to home. Diagnostics are essential for effective treatment, prevention, and efficient health spending—reducing missed diagnoses that burden both patients and health systems. Unfortunately, about half (47%) of the world's population lack adequate access to diagnostic services[2]. The realities of Low-Middle-Income Countries - LMIC (e.g Africa) are worse with about 87% lacking access to testing, 70% of the funding for diagnostics come from outside Africa, diagnostics represent less than 4% of funder budget and less than 2% of national budgets. The cost of diagnostics is often perceived as an unnecessary burden as many people want medicines, and not a test. Without urgent action to prioritize and invest in diagnostics as a core pillar of UHC, millions—especially in LMICs—will continue to face delayed or missed diagnoses, undermining health outcomes, wasting resources, and threatening the very promise of universal health coverage.

To achieve UHC, countries must elevate diagnostics as a core pillar of healthcare delivery. Building on Pai et al.'s "Seven Transitions" for TB diagnostics, we propose a framework for scaling access: prioritize equity via point-of-care testing; integrate networks to boost efficiency; embrace innovation; strengthen community-based outreach and screening; focus on public health impact; and ensure cost-effective, sustainable solutions. This shift from outdated approaches to modern, patient-centered technologies can make diagnostics a measurable reality.

To support the diagnostic agenda, it is also important to mention that diagnostic innovation is becoming a key driver for equitable, efficient and scalable testing in Africa – a key to achieving UHC. A lot of this innovation is taking place to bringing diagnostic tools closer to the communities and meet the needs and priorities of the communities and countries. Be it the big platforms that are high throughput, benchtop platforms for less complicated and lower regions, near POC of care devices, true Point of Care devices and self-care test kits. The efforts to leverage digital tools, artificial and mobile health platforms for diagnostics are very promising. The future of evidence-based management, precision medicine is diagnostics and laboratory testing.

Every $1 invested in diagnostics delivers multiple returns—saving lives, reducing disease burdens, and boosting economic productivity. For Africa, investing in diagnostics is not optional but urgent. Governments must embed diagnostics into national health benefit packages, remove user fees, expand insurance coverage, and champion sustained funding and advocacy. Without this, millions will continue to face delayed diagnoses, wasted resources, and avoidable loss of life—undermining the very promise of universal health coverage.

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AI-Powered Diagnostics: A New Frontier for Health Equity in Africa

By Blessing Tafadzwa Kadira, Strategy Development Manager, Wits Diagnostic Innovation Hub. He is a medical Scientist with 25 years of laboratory experience.

Artificial Intelligence (AI) is rapidly reshaping the global healthcare landscape, with diagnostics emerging as one of its most impactful applications.

AI's ability to process vast amounts of data, identify patterns, and generate precise predictions is improving diagnostic accuracy and enhancing patient outcomes, particularly in regions with constrained healthcare resources. However, its successful implementation requires addressing challenges such as data privacy, infrastructure limitations, and integration into existing health systems—especially in emerging markets.

At its core, AI simulates human intelligence, enabling machines to learn, reason, and solve problems. In diagnostics, this means automating and enhancing tasks that were traditionally the domain of healthcare professionals. AI algorithms are now capable of interpreting medical images, analyzing genetic information, and reviewing electronic health records with remarkable precision. This capability not only reduces human error but also uncovers subtle patterns that might otherwise be missed.

Tools powered by AI in radiology, pathology, and genomics are already demonstrating how technology can help detect diseases earlier and more accurately.

In emerging markets where healthcare systems are often overstretched, AI offers a much-needed boost. It can help triage patients, suggest diagnostic tests, and support clinicians in making informed decisions. These efficiencies free up specialists to focus on complex cases while ensuring that even primary healthcare providers have access to high-quality diagnostic support. This is especially critical in regions like sub-Saharan Africa, where diseases such as tuberculosis and malaria remain prevalent, and access to specialists can be limited.

The COVID-19 pandemic highlighted AI's potential in managing public health crises. From predictive modeling to contact tracing and outbreak forecasting, AI played a vital role in the global response. These experiences have emphasized the importance of integrating AI into public health strategies and aligning its use with broader goals like improving global health equity and strengthening health security.

For emerging markets, these lessons are particularly valuable in planning for future health challenges. Despite these opportunities, integrating AI into diagnostics presents several obstacles.

Reliable AI requires large, high-quality datasets to train systems effectively. In many emerging markets, healthcare data is often fragmented, incomplete, or inconsistently collected.

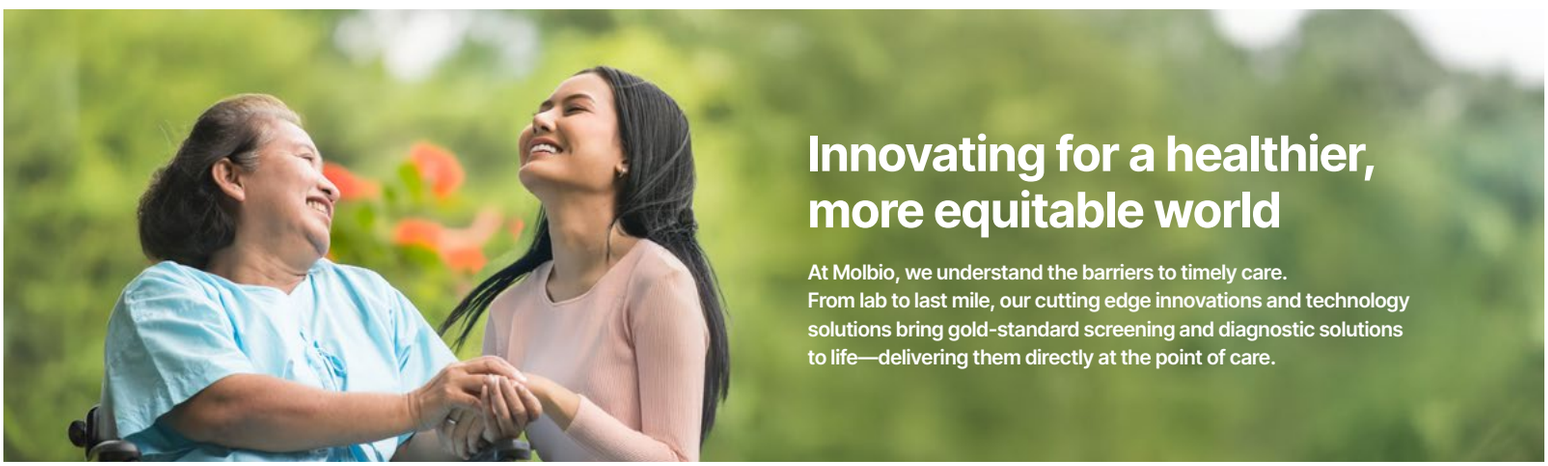
AI systems must also be tailored to local disease burdens and population needs to ensure accuracy and relevance. Furthermore, ethical concerns around data privacy, algorithm transparency, and trust remain significant. The often opaque nature of AI decision-making—sometimes referred to as the "black box" problem—can hinder confidence in its use among healthcare providers and patients.

Infrastructure is another key barrier. Many regions lack the basic technological foundations—such as consistent electricity, internet access, and computing capacity—necessary for AI deployment at scale. Additionally, there is a critical shortage of skilled professionals to develop, maintain, and interpret AI tools. To overcome this, countries must invest in education and training, focusing on data science, healthcare innovation, and digital literacy.

Nevertheless, the potential of AI to transform diagnostics remains strong, particularly as part of the broader technological shift of the Fourth Industrial Revolution. The convergence of digital, biological, and physical technologies presents exciting opportunities to modernize healthcare and expand access to quality diagnostics.

In Africa, local innovations are already making a difference. AI-enabled platforms are helping monitor chronic diseases, and telemedicine solutions are reaching rural communities that previously had limited access to care. Looking ahead, the successful use of AI in healthcare will require a balanced approach. AI should support, not replace, the diagnostic expertise of clinicians. By integrating AI insights with clinical judgment and patient context, healthcare systems can deliver more personalized, accurate, and timely care.

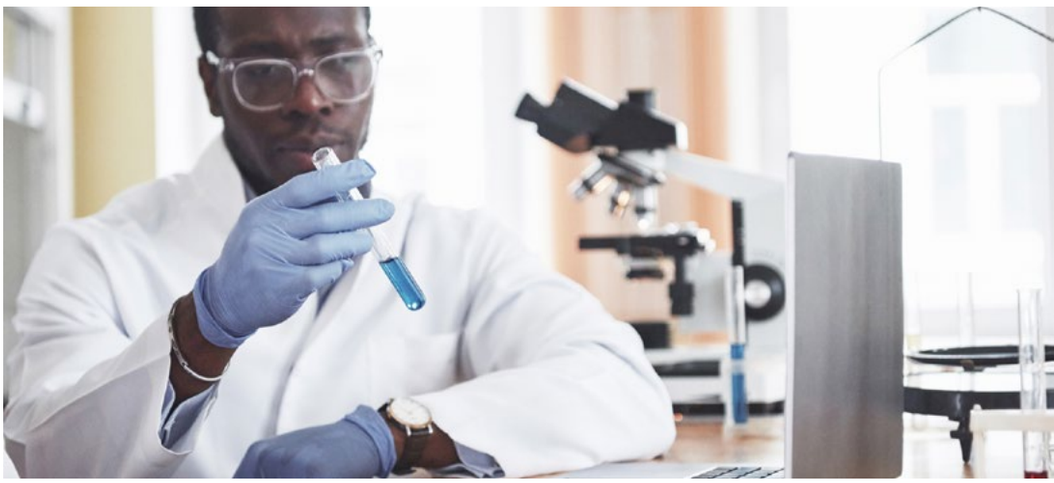
AI has the potential to revolutionize diagnostics, especially in emerging markets where healthcare systems face resource and infrastructure challenges. With thoughtful implementation, strong governance, and a focus on inclusion and equity, AI can become a powerful tool in achieving better health outcomes and building more resilient healthcare systems across the African continent and beyond.



Bringing Diagnostics Closer:

A Community Perspective on the Impact of the Resolve Project in Burkina Faso

By Ouedraogo Kouka,
Community Member,
Burkina Faso



In the past, getting tested for a disease at my local health center seemed almost impossible. People from my community had to travel long distances, sometimes hundreds of kilometers to get basic diagnostic services. These journeys weren't just exhausting; they cost money, time, and valuable income. For many of us, it meant giving up a day's work or more just to reach a facility that could run a simple test. But all that began to change when the Resolve to Save Lives project, coordinated by the African Society for Laboratory Medicine (ASLM), reached our region.

The Resolve to Save Lives project came at a critical time. Burkina Faso has faced growing challenges in disease surveillance and epidemic response. From limited diagnostic capacities to a lack of quality control and trained health workers, our laboratory system has many gaps—especially at the peripheral level where most people access care. Thanks to this project, supported through ASLM, we've seen a real shift in how healthcare and diagnostics are delivered to communities like mine.

During its implementation, the project supported 37 laboratories across 13 regions and 70 districts. These included health centers at all three levels of the national laboratory network—peripheral, intermediate, and national. For the first time, our health posts were equipped with rapid diagnostic tests (RDTs) for diseases that often go undetected until it's too late, like Dengue, bacterial meningitis, and rotavirus-related diarrhoea.

One of the most important parts of the project was not just the delivery of reagents and supplies, but the training of healthcare workers. Nurses, lab technicians, and even community health staff were brought together for training on standard operating procedures (SOPs). As a community member, I can tell you—it makes a difference when the people taking care of us are properly trained. We now feel confident in the care we receive.

The health professionals understand not just how to perform the tests, but also how to interpret results, handle biohazards, and deliver care safely. I remember clearly when my neighbor fell ill with a fever. In the past, we might have waited days or made a long trip to the city. But this time, he was tested at our local clinic and diagnosed early with Dengue. He got treatment quickly and recovered without complications. That's the difference diagnostics at the community level can make—it saves lives and livelihoods.

Beyond individual care, the project also brought broader change. It mapped 255 medical laboratories and assessed the national lab network through a "One Health" approach. This provided essential data for national planning. And critically, it enrolled 35 COVID-19 diagnostic labs in External Quality Assessment (EQA) programs, helping build a culture of quality and reliability in our testing systems.

What impressed many of us here was the coordination between health authorities and ASLM. From national policymakers to community clinics, everyone was involved. Training didn't just stop at the city hospitals; they came to us, the people on the frontlines. The project even helped train 10 certified SPI-RT auditors and validated SOPs through real-world testing—a first for Burkina Faso. Of course, challenges remain. The number of facilities included had to be reduced from 160 to 37 due to budget constraints. And we know that full autonomy and resilience will take time. But now, we've seen what is possible. As a community member, I'm calling on our government and partners to keep building on what Resolve has started. Let's extend training to all 70 districts. Let's keep investing in peripheral health structures so we don't go back to a time when testing meant sacrifice. The Resolve project didn't just bring tests. It brought dignity, access, and hope to communities like mine. It brought diagnostics closer and in doing so, it brought healthcare within reach for all.

Thank you, ASLM, and all the partners who made this possible. We look forward to the day when every health post in Burkina Faso can diagnose and respond to disease threats without delay.

Sustaining Diagnostics:

The Impact of the USG Funding Freeze on Laboratory Services in Africa

Dr. Kgomosto Makhaola,
Senior Science Manager,
ASLM

The temporary suspension of United States Government (USG) funding—primarily through the President's Emergency Plan for AIDS Relief (PEPFAR)—has revealed critical vulnerabilities in Africa's laboratory systems. A survey conducted by the African Society for Laboratory Medicine (ASLM) across 16 partner countries underscores far-reaching consequences of this funding pause and highlights the urgent need for sustainable solutions. Findings from the ASLM survey show that 80% of participating countries rely on USG funding for more than 25% of their laboratory budgets. This dependency has placed many national laboratory systems at risk, with critical services such as sample transport, equipment maintenance, and quality assurance systems among the most affected.

In fact, 62.5% of countries reported significant disruptions to their sample transport networks, delaying diagnostics and hampering disease surveillance efforts. Half of the respondents also cited challenges in maintaining and repairing essential diagnostic equipment, while 50% experienced setbacks in implementing quality control systems—undermining the reliability of test results. Additionally, many laboratories are facing difficulties in retaining skilled staff due to uncertainty surrounding future funding.

Alarmingly, 62.5% of countries lacked finalized contingency plans, leaving them ill-equipped to respond to the sudden halt in funding. Only 12.5% reported the capacity to maintain essential services for more than a year without USG support. In the face of this challenge, several countries are exploring alternative strategies being domestic funding, diversification of funding sources as well as seeking private sector partnerships for short term gap filling. These efforts, while commendable, highlight the broader issue: Africa must establish long-term solutions to secure its laboratory systems. To guide future resilience, the respondents proposed a Minimum Package of Laboratory Services (MPLS) that must be preserved under any circumstances.

This includes diagnostic testing for priority diseases based on national essential diagnostics lists, basic equipment maintenance and repair, robust quality assurance systems, staff training and retention, and minimal data collection and reporting capacity.

The report issues a clear call to African governments and stakeholders: commit to long-term investment in laboratory systems. This includes not only financial support but also improved accountability, strategic partnerships, and a focus on quality and efficiency. As Africa continues to face emerging health threats including shifts in global funding landscape, resilient laboratory systems are not optional—they are foundational. The current funding crisis presents an opportunity to reimagine and reinforce the continent's diagnostic backbone.

ASLM CEO, Mr. Nqobile Ndlovu emphasized, "This funding pause is a wake-up call. It's time for African governments and stakeholders to take ownership of laboratory systems and ensure their sustainability."

And in response, ASLM commits to convening high level consultative meetings with member states to re-emphasize the role of diagnostics and advocate for increased budgetary allocations for laboratory services. ASLM will also develop comprehensive diagnostics business plan and funding models including PPP frameworks that address the unclear real cost and benefit derived from optimization of laboratory networks.

We cannot treat what We do not Diagnose

By Dr. Susan Nabadda, Executive. She is the prominent figure in the field of public health and laboratory medicine in Uganda and the current chair of the Lab Director Forum in Africa.

Diagnostics as the First Line of Defense

In global health, one fundamental truth holds firm: we cannot treat what we cannot diagnose. Diagnostics are the heart of any health system. Whether its managing pandemics or treating a child in a rural clinic, accurate diagnosis guides effective treatment, prevents misuse of medication, curbs antimicrobial resistance (AMR), and saves lives. Diagnostics underpin universal health coverage, epidemic preparedness, and disease elimination. They must lead our response across maternal health, AMR, and pandemic threats.

Uganda's Diagnostic Transformation

Uganda has transitioned from reactive to frontline proactiveness in its approach to diagnostics, especially during major outbreaks like COVID-19, Ebola, Mpox, and in combating AMR. This progress stems from strong a strong national laboratory tiered network supported by strong political will, local innovation and sustained technical partnerships.

The transformative agenda driven by the Ministry of Health has prioritized laboratories as essential to achieving universal health coverage and managing both endemic diseases (HIV, TB, HBV) and emerging threats (Ebola, Marburg, COVID-19, NCDs, and AMR). The key to this progressive

and sustainable success has been;

- The establishment of National Laboratory Directorate that coordinates and advocates for laboratory services and mobilizes resources.
- Setting up of over 100 diagnostic hubs across the country, tailored to facility levels serivces, bringing diagnostics closer to communities.
- Robust integrated National sample transport and result return system covering 95% of health facilities, ensuring timely testing and reporting.
- Strengthening national and regional reference laboratories, equipped to handle priority pathogens and conduct advanced testing like genomic sequencing including Central Public Health Laboratories, National TB Reference Lab and the National Microbiology and Genomics Labs. These collaborate with institutions like Uganda Virus Research Institute, Makerere University, and the Joint Clinical Research Centre.
- Introducing mobile laboratories that respond rapidly to outbreak epicenters, allowing immediate diagnosis and public health action.
- Integrating digital lab information systems that improve data flow and enable real-time reporting for better patient and epidemic management.
- Establishing over 20 AMR surveillance sentinel sites, guiding appropriate antibiotic use and stewardship.
- Operationalizing a national test and treat policy for diseases like malaria, HIV, TB, hepatitis B, and syphilis—ensuring diagnosis before treatment begins.
- Widespread deployment of point-of-care diagnostics, such as 298 GeneXpert and 200 m-PIMA machines, particularly in hard-to-reach areas, to speed up diagnosis and treatment initiation.
- Having a pool of skilled laboratory workforce that supports timely, accurate testing.
- robust quality assurance framework, anchored by an ISO 17043-certified lab. Setting up a Quality assurance framework anchored by an ISO 17403 certified laboratory producing proficiency testing panels for over 20

diagnostic scopes (e.g., HIV viral load, TB microscopy, COVID-19 PCR, hepatitis B, HPV)

- having more 90 ISO 15189-accredited laboratories including public, private, research and academic laboratories ensuring high-quality, reliable results.

Uganda has established a decentralized, data-driven laboratory network fully integrated into the national health infrastructure. Health workers can diagnose treatment—an essential step toward effective care. Thanks to these systems, Uganda has established a decentralized, data-driven laboratory network fully embedded into the national infrastructure.. Health workers can diagnise quickly and accurately before initiating

However, challenges remain. Many lower-level facilities still lack basic diagnostics. Sample transport can be delayed during emergencies. Human resource gaps persist, particularly in rural regions. Supplies

are often insufficient, and funding for laboratory services remains inadequate. Without addressing these systemic gaps, Uganda's journey toward universal health coverage may stall.

Invest Now or Pay Late

We don't need more equipment in stores. We need functioning systems in clinics and Uganda is proving that it's possible. Uganda's experience proves that when laboratories are prioritized, patients win.

The work ahead calls for renewed investment, visionary leadership, and a collective belief that no diagnosis should be delayed or denied.Investing in diagnostics is not negotiable. We must shift from vertical, reactive funding to integrated, sustainable investment. We're not just testing samples. We're protecting lives, restoring trust, and building resilience for future generations.

The road ahead demands more innovation, stronger partnerships, and courageous advocacy.
You cannot treat what you do not diagnose. But when you diagnose well, you do more than treat. You give people back their future.

ASLM Podcast Series

Nigeria's Bold Strides in Diagnostic:

Integrating Systems, Enhancing Quality, and Strengthening National Coordination

David Uche
Communications Officer, ASLM

NATIONAL SUMMIT ON DIAGNOSTICS

Nigeria is charting a bold new course in diagnostics, making significant strides to transform its laboratory systems into a cornerstone of Universal Health Coverage (UHC) and global health security. At the forefront of this effort is the Medical Laboratory Services Division (MLSD) of the Federal Ministry of Health and Social Welfare (FMoH&SW), which has spearheaded a series of reforms and initiatives to elevate the country's diagnostic infrastructure and services. A defining moment came in March 2025 with the successful convening of Nigeria's first-ever National Summit on Diagnostics.

The landmark event brought together government leaders, academia, development partners, and private sector stakeholders to chart a unified vision for diagnostics in Nigeria. With the Honourable Minister of State for Health, Dr. Iziaq Adekunle Salako, as the Special Guest of Honour and renowned virologist Professor Oyewale Tomori delivering the keynote address, the summit underscored diagnostics as central to epidemic preparedness, disease surveillance, and equitable healthcare access. The summit not only highlighted existing challenges but also showcased homegrown innovations and galvanized strategic commitments to expand access, integrate services, and foster a resilient national diagnostic ecosystem.

Honourable Minister of State For Health: Special Guest of Honour at the National Summit on Diagnostics, March 2025

Building on the momentum, the Medical Laboratory Services Division (MLSD) launched two pivotal policy instruments aimed at institutionalizing reforms:

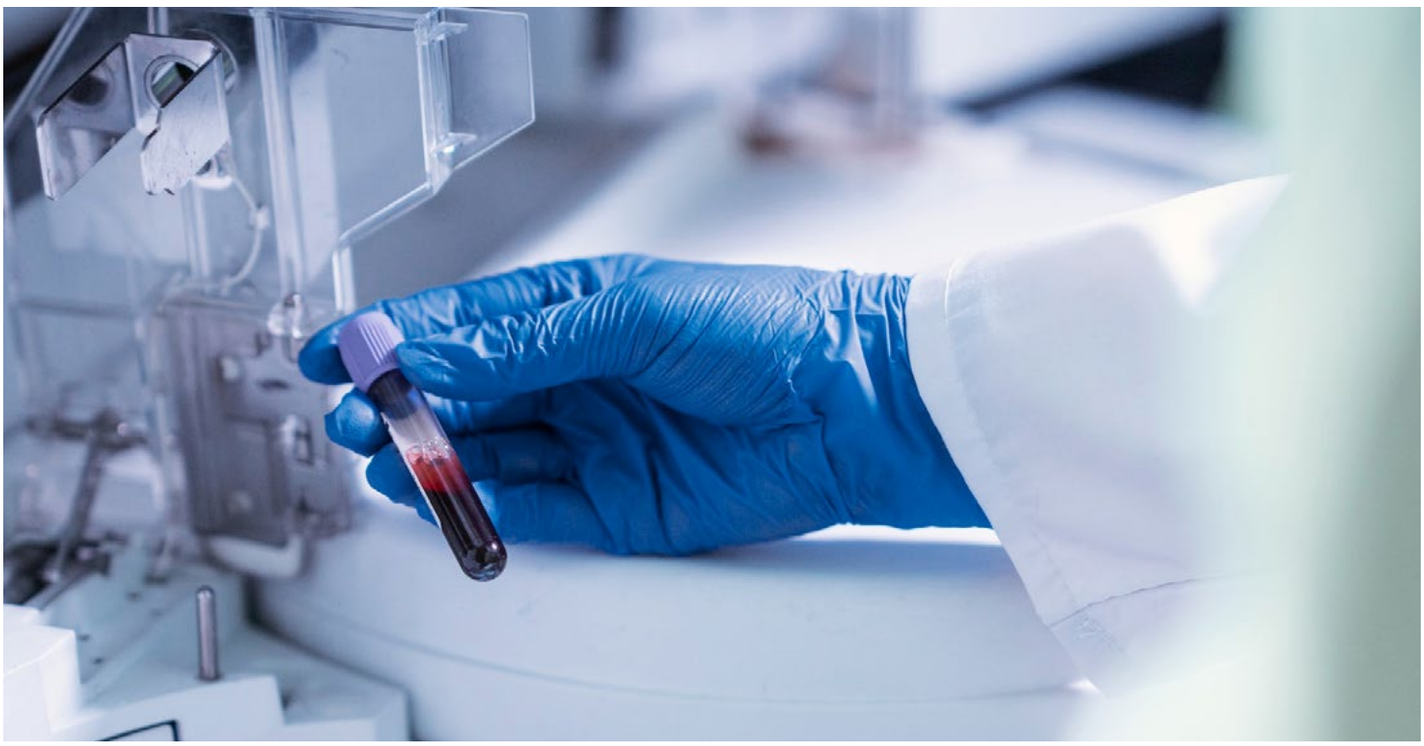
- The National Guideline for the Integration of Medical Laboratory Services and Systems, and
- The Nigerian Medical Laboratory Strategic Plan (NMLStP) 2023–2027.

The Integration Guideline represents a paradigm shift—promoting the harmonization of disease-specific diagnostic programs (including HIV, TB, malaria, COVID-19, and non-communicable diseases) into a cohesive, unified laboratory network. This approach is designed to increase access to quality services, optimize resource use, and enhance national pandemic readiness. Meanwhile, the Nigeria Medical Laboratory Medical Strategic Plan (NMLStP 2023–2027) outlines a comprehensive, ten-chapter blueprint focused on key thematic areas: leadership and governance, regulatory frameworks, quality management, workforce development, financing, emergency response, biosafety, and more. It lays the groundwork for coordinated action, sustained investment, and measurable progress aligned with Nigeria's broader health goals.

In parallel, Nigeria is deepening its commitment to quality management systems (QMS). The MLSD is scaling up QMS implementation in tertiary medical laboratories, with ongoing efforts to train local auditors and mentors, ensuring continuous quality improvement and accreditation readiness in line with ISO 15189 standards. These initiatives reflect Nigeria's firm resolve to embed diagnostics into the heart of its healthcare delivery model. By aligning policy, practice, and partnerships, the country is setting a compelling example for others seeking to modernize their laboratory systems through innovation, collaboration, and strategic leadership.

As Nigeria continues on this transformative path, it is not only enhancing health outcomes at home but also contributing valuable lessons to the global health community.

More Than a Test: How Diagnostics Shape the Future of Health Care



Anafi Mataka,
Head of Division ASLM.

Sylvester Moyo,
Project Manager ASLM

Diagnostics are often seen as routine tools, tests that confirm a clinician's suspicions before treatment begins. But in reality, they do far more. Diagnostics shape every step of care, from guiding treatment decisions to enabling outbreak response and strengthening entire health systems. When early and accurate testing is available, it saves lives, reduces costs, and turns reactive health systems into proactive, resilient ones.

Across Africa, real-world examples show just how transformative diagnostics can be. Decentralizing early infant diagnosis (EID) from central labs to district facilities cut result turnaround times from months to just hours. The impact was dramatic: same-day care linkage jumped from under 20% to over 80%, and infant mortality at 12 months was halved (Salvatore et al., 2021; Biachi et al., 2029).

Similarly, rolling out Xpert MTB/RIF testing for tuberculosis at peripheral sites shifted diagnosis from weeks of waiting to just days, leading to a 25% increase in timely treatment and significantly lowering community transmission (Tamirat et al., 2022). Rapid antigen testing during COVID-19 identified asymptomatic carriers early, preserving critical care capacity during surges (Schwartz et al., 2021). Diagnostics also drive better management of chronic diseases.

Portable lipid and glucose analyzers deployed in rural clinics improved risk-factor control among hypertensive and diabetic patients by 30%, reducing hospital admissions (Konnyu et al., 2023). These successes highlight a simple truth: when diagnostics are brought closer to patients, outcomes improve, transmissions drop, and health systems become more responsive and efficient.

Beyond individual patient care, diagnostics create ripple effects across entire systems. They optimize treatment by guiding clinicians to the right therapies quickly, reducing unnecessary drug use and slowing antimicrobial resistance. They generate real-time data that power public health intelligence, enabling early warning systems, better resource allocation, and predictive modeling for disease trends. When integrated with digital health platforms, diagnostics provide seamless reporting, patient tracking, and data-driven decision-making.

Diagnostics also make systems more efficient. Pooled procurement and coordinated supply chains reduce per-test costs and prevent stockouts, while training nurses and community health workers to perform point-of-care testing extends services into underserved areas. This combination brings care closer to those who need it most, shortens turnaround times, and eases the burden on centralized laboratories.

Investing in diagnostics is not just good medicine - it's smart economics. In Europe, diagnostics account for less than 1% of health spending yet inform over 60% of clinical decisions (Jordan et al., 2015). In Africa, though data is sparse, the return on investment is clear. Every $1 spent on TB diagnosis and treatment yields $43 in avoided costs, improved productivity, and reduced drug resistance (Stop TB Partnership, n.d.). During the COVID-19 pandemic, widespread rapid testing led to a 43% drop in hospital admissions, preserving scarce resources (Zhang et al., 2022).

To unlock these benefits, countries need coordinated strategies. The National Essential Diagnostics List (NEDL) serves as a blueprint, guiding which tests should be prioritized, where they should be delivered, and how they can be financed sustainably. By focusing on high-impact tests like HIV viral load, malaria RDTs, and blood glucose monitoring and ensuring access even in rural clinics, NEDLs help create equitable, cost-effective systems.

ASLM plays a critical role in this transformation. Through initiatives like the NEDL, the Africa Collaborative to Advance Diagnostics (AFCAD), and LabMap, ASLM helps countries align policy, build capacity, and scale innovations such as molecular diagnostics, multi-disease platforms, and decentralized testing. These efforts reflect a global shift as outlined by Pai et al. (2023) in Nature Medicine - toward replacing outdated tools with modern, accessible diagnostics, prioritizing affordability, and moving toward integrated, disease-agnostic systems.

Diagnostics are no longer optional; they are foundational. They guide life-saving treatment, enable real-time surveillance, and unlock system-wide efficiencies. As Africa strives toward universal health coverage and pandemic preparedness, investing in diagnostics is not just a technical requirement—it's a strategic imperative. With leadership from organizations like ASLM and Africa CDC, and with tools like the NEDL, Africa is well-positioned to build resilient, equitable diagnostic systems that can transform health outcomes at scale.
Because without diagnostics, there is no diagnosis and without diagnosis, there is no health.

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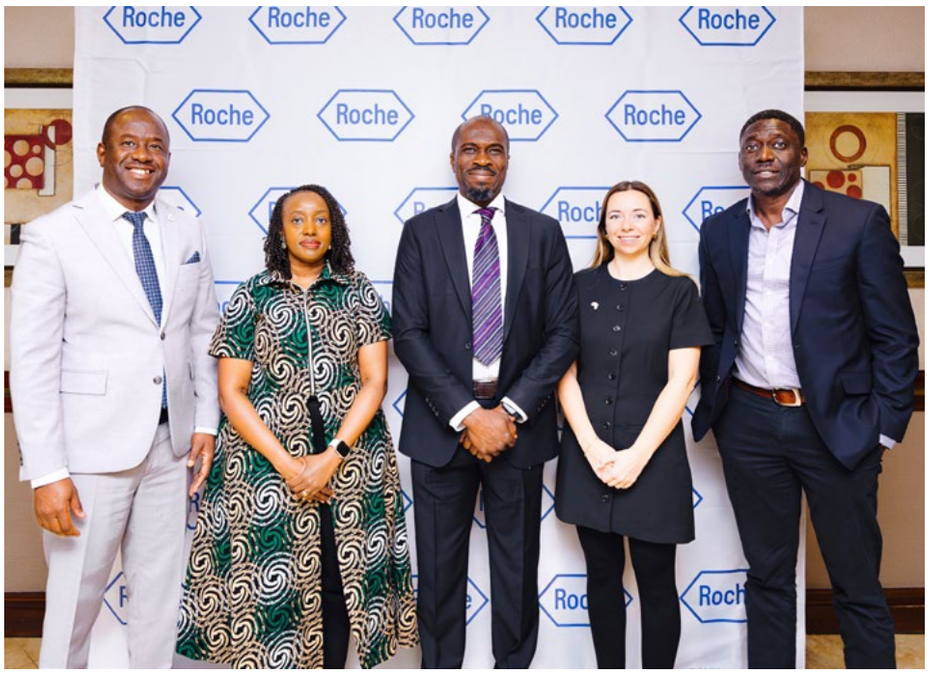
By: informa

Welcome Informa: New ASLM Corporate Member
ASLM is thrilled to welcome Informa as a new corporate member! Informa connects over **570,000** healthcare professionals globally through **12 exhibitions, 90 conferences,** and **continuous engagement**. Their mission to foster learning, collaboration, and innovation in healthcare aligns with ASLM's goals to improve lab systems across Africa. We are excited about the opportunities this partnership brings!
Learn more: informamarkets.com/healthcare

ASLM and Roche Partner to Strengthen Laboratory Leadership Across Africa



Megan Kelly,
Director of Business Development, ASLM

ASLM is proud to announce an innovative partnership with Roche aimed at transforming laboratory leadership and strengthening diagnostic systems across the African continent. This collaboration, titled LEAD: Leadership Excellence for African Diagnostics will deliver a comprehensive program designed to build the capacity of emerging lab leaders through structured mentorship, tailored training, and peer-to-peer learning. At the heart of the initiative is a focus on developing a strong, strategic cadre of laboratory professionals who can lead with confidence and vision.

The program includes leadership assessments, customized mentorship tracks, and a robust Trainer of Trainers (ToT) model, ensuring that skills and knowledge are effectively cascaded across networks. Through South-South Exchanges, participants will engage in practical learning and shared experiences, fostering regional collaboration and innovation. By working closely with national Ministries of Health, academic institutions, and key stakeholders, the partnership will ensure that training is responsive to real-world needs and aligned with national health priorities.

Emerging leaders will not only receive professional development and visibility but also benefit from sustained support and resources to drive change within their health systems.

The ASLM – Roche partnership is poised to make a lasting impact by enhancing laboratory leadership capabilities, fostering regional collaboration, improving health outcomes, and ultimately strengthening healthcare systems. This innovative collaboration demonstrates the power of public-private partnerships to address pressing health challenges in Africa by combining technical expertise, strategic investment, and a shared commitment to sustainable impact.

ASLM Advances Steadily Toward ISO 9001: 2015 Certification

Joshua Mwangi,
Chief Operating Officer,
ASLM

The African Society for Laboratory Medicine (ASLM) continues to make progress toward achieving ISO 9001:2015 Quality Management System (QMS) certification by the end of 2025. This certification will mark a significant milestone in ASLM's commitment to operational excellence, stakeholder satisfaction, and continuous improvement across all departments.

Since April 2023, ASLM has been undergoing a comprehensive capacity development process to align its systems, processes, and governance with international best practices.

As part of this transformation, the organization has restructured its operations division to establish dedicated departments to streamline delivery of its operational services. These changes have been supported by the development and revision of key organizational policies, the automation of business processes using SharePoint, and an emphasis on data-driven decision-making.

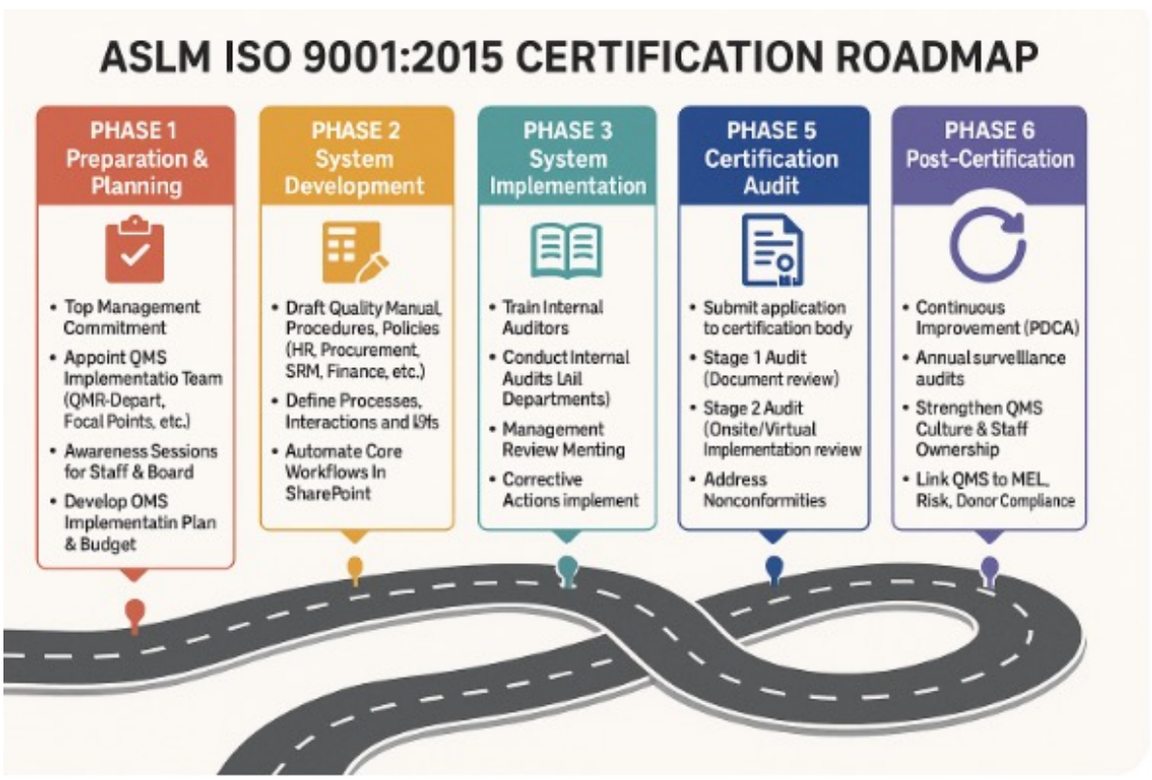
In the first and second quarters of 2025, ASLM completed several foundational milestones in the ISO 9001:2015 journey, including setting up a QMS Project Team, identifying QMS Champions, and developing foundational documentation such as ASLM's Quality Policy Statement, Quality Objectives, the QMS Manual and SOPs and Policies in each of ASLM's core departments. ASLM has also identified process owners, KPIs and risk management plans.

The focus for the third quarter of 2025 includes the formal launch of the QMS, full implementation of the QMS, internal audits, and corrective actions.

ASLM will also initiate regular management review meetings and is working closely with external ISO consultants to prepare for the Stage 1 and Stage 2 audits. The implementation is guided by the Plan-Do-Check-Act (PDCA) model to ensure continuous feedback loops and performance improvement. By aligning with ISO 9001:2015, ASLM seeks to strengthen donor confidence, enhance cross-functional accountability, and institutionalize a culture of quality and transparency. This journey is also a critical enabler for ASLM's 2023–2027 Strategic Plan, which prioritizes impact-driven programming, systems strengthening, and value-for-money across Africa's laboratory and diagnostics landscape.

We thank our board, staff and all other key stakeholders for their unending support as we work toward this important milestone.

Updates and highlights will continue to be shared in upcoming editions of LabVoice and through our internal SharePoint QMS Hub.



ASLM Membership

In this edition of LabVoice, we're proud to showcase three inspiring ASLM members: the ZAMLCS Association from Zimbabwe, Dr. Nourlil, a LabPro member from Morocco, and Mr. Niyikiza, a dedicated student member from Rwanda.

ZAMLCS: Driving Excellence in Medical Laboratory Science

Tell us about your association

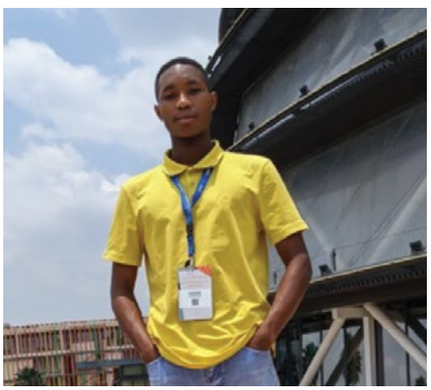
The Zimbabwe Association of Medical Laboratory and Clinical Scientists (ZAMLCS), established in 2016, is the national professional body representing medical laboratory and clinical scientists in Zimbabwe. Formed to unify and strengthen the profession amid evolving training standards, ZAMLCS advocates for quality laboratory services, fair labour practices, and the inclusion of laboratory professionals in national health policy. It promotes professional development, research, and innovation, while actively engaging in policy dialogue, collaboration with regulatory bodies, and partnerships across Africa and beyond to elevate the visibility and impact of the profession in safeguarding public health.

What is your association's goal

A common goal of strengthening laboratory systems throughout Africa via cooperation, innovation, and capacity building led to the decision to join the African Society for Laboratory Medicine (ASLM). ASLM offers a continental platform that fosters knowledge sharing, links laboratory professionals, and promotes quality enhancement. By being a member of this active community, ZAMLCS can learn from colleagues throughout the continent and showcase Zimbabwe's contributions to laboratory medicine.

Why did you choose to join ASLM?

Access to mentorship opportunities, technical resources, peer learning and a stronger voice in local health discussions are all benefits of ASLM membership. It is a significant step for ZAMLCS and a concrete value proposition to our members and prospective members in our quest for sustainable laboratory services that meet international standards.



Tell us about yourself

My name is Ezebe NIYIKIZA from Rwanda, East Africa. I am a 23-year-old male studying Medical Laboratory Sciences at Mount Kigali University, Rwanda.
My passion for this field stems from a childhood experience when I suffered severe abdominal pain, fever, loss of appetite, and weakness. I stopped school because of that condition. A doctor suspected parasitic infections but was not sure which one was that and referred me for laboratory tests. After providing stool and blood samples, the tests revealed amoebic infection, leading to effective treatment and my quick recovery. This experience motivated me to pursue science courses in secondary school and eventually specialize in medical laboratory sciences at the university level to help diagnose diseases and alleviate people's suffering.

What inspired you to pursue laboratory medicine?

The work of lab scientists during the COVID-19 pandemic in 2020 inspired me further. My aspiration is not only to be a medical laboratory professional but also to be a key voice in Rwanda's health sector, particularly in laboratory medicine.

And what are your goals?

I aim to become a molecular biologist and Microbiologist, and I am committed to acquiring all the necessary skills to achieve my goals by the time I afford required means.

Why did you choose to join ASLM?

I decided to join ASLM after a great conversation with a membership manager, Alessandra Piani. She explained ASLM's mission, which focuses on improving clinical and public health outcomes in Africa through enhancing better professional laboratory practices, sciences and networks. It means a lot to me to be a member of or in a family of ASLM.Thank you very much!

Tell us about yourself

My name is Dr. Jalal Nourlil, a medical virologist from Morocco, serving as the Head of the Medical Virology and BSL-3+ Laboratory at the Institut Pasteur du Maroc in Casablanca. With over 20 years of experience, I lead efforts in identifying and genotyping human viral diseases, including respiratory viruses, hemorrhagic fever viruses, and emerging pathogens.

What inspired you to pursue laboratory medicine?

My passion for laboratory medicine stemmed from understanding how viruses impact human health and the critical role diagnostic laboratories play in disease prevention. My interest intensified during health crises when I established the National Laboratory for Emerging and Dangerous Pathogens following the H1N1pdm outbreak in 2009, the MERS-CoV outbreak in 2012, and during the Ebola, Zika, and COVID-19 pandemics. These experiences reinforced my belief that robust laboratory systems are the backbone of effective public health responses.

What are your goals?

My goals center on advancing laboratory medicine capabilities across Africa through innovative diagnostic approaches and capacity building. I aim to strengthen collaborative networks that enhance surveillance systems for emerging infectious diseases while mentoring the next generation of laboratory professionals. Through my research, including over 30 publications and viral genomic surveillance work, I strive to contribute evidence-based solutions to Africa's health challenges.

Why did you choose to join ASLM?

Being part of ASLM means contributing to a shared vision where every African has access to quality laboratory services while learning from peers across the continent. The network's commitment to excellence aligns perfectly with my dedication to advancing laboratory medicine as a cornerstone of African healthcare.

ASLM Membership Opportunities

Strengthening Africa's Health Workforce

ASLM to launch Cohort 2 of its Internship Program

Phoebe Nzombe,
Education Manager, ASLM

The African Society for Laboratory Medicine (ASLM) is excited to launch Cohort 2 of its flagship Internship Program, running from January to December 2026. Building on the success and lessons learned from the inaugural cohort, the program is expanding its reach, disciplines, and impact across the continent.

From Classroom to Career – Cohort 1's Transformative Journey
In its first year, the program welcomed seven medical laboratory science graduates from Ethiopia, Kenya, Malawi, Nigeria, Uganda, Zambia, and Zimbabwe. Each intern was embedded in a local host institution while contributing to ASLM's regional projects, gaining hands-on experience in laboratory operations, AMR coordination, quality assurance, and digital learning.

"I thought I'd just be exploring online health courses," shared Surprise Kyalo from Kenya. "Instead, I gained real skills in AMR data, course creation, and personal growth. It was one of the most enriching professional opportunities I've had."

From preparing proficiency testing samples in Zimbabwe to supporting veterinary sample collection in Zambia and engaging with national AMR initiatives in Malawi, interns made meaningful contributions to public health systems in their countries.

Championing Women in Science

To mark the International Day of Girls and Women in Science, ASLM spotlighted female interns Kapesa Lumayi (Zambia) and Gladys Gwazanga (Malawi) through a podcast, sharing their stories and inspiring young African women to pursue careers in science. However, ASLM noted that only 2 of 7 interns were women in the first cohort. In response, Cohort 2 will adopt affirmative action principles aligned with CEDAW, ensuring greater gender equity in the selection process.

What's New in Cohort 2?

- **Expanded Disciplines** – In recognition of the multidisciplinary nature of health systems, the 2026 cohort will now include graduates from fields such as nursing, biomedical sciences, biostatistics, HR, journalism, communications, M&E, accounting, business, and social sciences.
- **Wider Continental Reach** – While the first cohort was limited to seven countries, ASLM is working to include more African nations in Cohort 2, fulfilling its Pan-African mandate.
- **Stronger Industry Links** – Interns will benefit from increased industry exposure, working alongside private sector partners to gain insights into innovation, implementation, and career pathways.
- **Improved Host Engagement** – Following delays in cohort 1 placements, ASLM will initiate early engagement with host institutions and build in contingency plans to ensure smoother onboarding and mentorship.

A Platform for Africa's Future Health Leaders

ASLM's Internship Program continues to shape the next generation of professionals ready to strengthen Africa's health systems. With a renewed commitment to inclusivity, innovation, and collaboration, Cohort 2 promises to be bigger, broader, and bolder.

Knowledge Station

Artificial Intelligence in Medical Diagnostics: Revolutionizing Precision and Speed in Healthcare

David Uche
Communications Officer, ASLM

Understanding AI's Role in Medical Diagnostics

AI refers to the ability of machines to simulate human intelligence processes such as learning, reasoning, and decision-making. In medicine, AI-powered tools are increasingly used to improve diagnostic accuracy, accelerate decision-making, and enhance patient outcomes. Technologies such as machine learning, computer vision, and natural language processing are at the core of these innovations.

There are three main types of AI:

- **Narrow AI** (task-specific intelligence),
- **General AI** (multi-task intelligence),
- **Super AI** (hypothetical human-level AI with self-awareness).

Applications Across Disciplines

Radiology benefits from AI's ability to analyze imaging data from X-rays to CT scans, and MRIs more efficiently than traditional human review.

Pathology is seeing a shift toward digital diagnostics, where AI interprets tissue slides and identifies abnormalities with remarkable precision.

Genomics, the central focus of the presentation, is experiencing a transformation as AI facilitates:

- Disease prediction and diagnosis,
- Personalized medicine,
- Drug discovery and gene editing,
- Real-time tracking of infectious disease evolution.

Real-World Use Cases: From Rare Diseases to ICU Surveillance

AI-driven genomics has helped diagnose rare diseases, 95% of which currently have no cure and have reduced diagnosis time from years to months. Genome-wide association studies (GWAS) are also enabling early detection and improved treatment plans for cancers.

In Botswana, genomic surveillance powered by AI helped track pathogens from ICU patients, identifying pathogens like SARS-CoV-2, Acinetobacter baumannii, and Klebsiella pneumoniae. AI tools were used to build phylogenetic trees and model antimicrobial resistance profiles in real time, an invaluable resource in outbreak scenarios.

One standout example is AlphaFold, an AI system developed by DeepMind, which predicts 3D protein structures and is revolutionizing structural genomics and vaccine development.

Benefits and Future Outlook

AI improves diagnostic accuracy, speed, and cost-efficiency, and ensures consistency by reducing human error. However, challenges like data privacy, model bias, and regulatory limitations must be addressed to fully realize its potential.

The future of AI in diagnostics includes:

- Personalized medicine tailored to individual genetic profiles,
- Real-time monitoring via AI-powered wearables,
- Remote diagnosis in rural and underserved regions, and
- AI-assisted decision-making for clinicians.

Conclusion

AI is not just a futuristic tool, it is already transforming medical diagnostics by enabling faster, more accurate, and more personalized healthcare solutions. With ongoing innovation and investment, AI will continue to bridge diagnostic gaps, improve outcomes, and empower health systems across Africa and beyond.

Downloadable Resource Section:

LabCoP CONNECT Volume 8, Issue 1

Blueprint: Laboratory Leaders of the Future

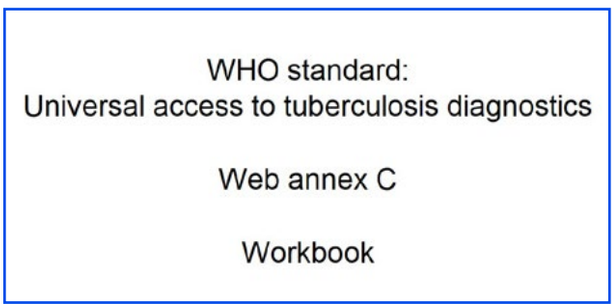
The Impact of a Temporary Suspension of United States Government (USG) Funding on Laboratory Services in African Partner Countries

Status Report on Laboratory Leadership in Africa

Issue Brief on Laboratory Leadership in Africa

ASLM Annual Report 2023 – 2025

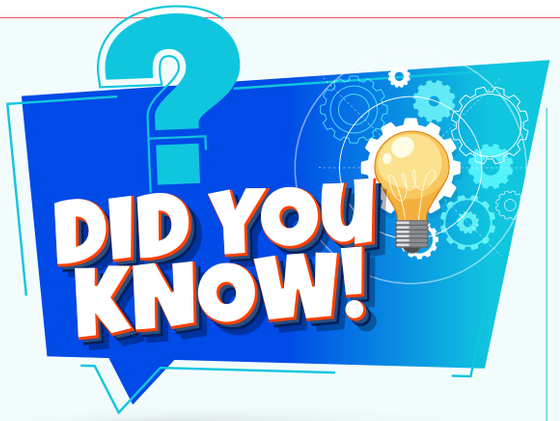
WHO Standard: Universal Access to Rapid Tuberculosis Diagnostics



Dissemination of the Report on the Status of Laboratory Professional Associations in Africa

Events & Opportunities

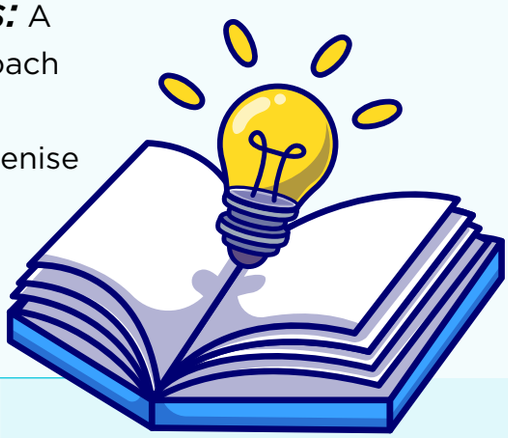
- IAS 2025
- Africa Health Business
- 8th Conference on Liver Disease in Africa (COLDA) 2025
- Annual LabCoP Meeting
- 2nd ECOWAS Lassa Fever International Conference Set for September 2025 in Abidjan
- The World Health Summit
- ASCP Annual Meeting
- ASLM Special Convention on Diagnostics



The world's first diagnostic test was invented over 3,500 years ago—urine color was used to assess health in ancient Egypt.

Bookmarked:

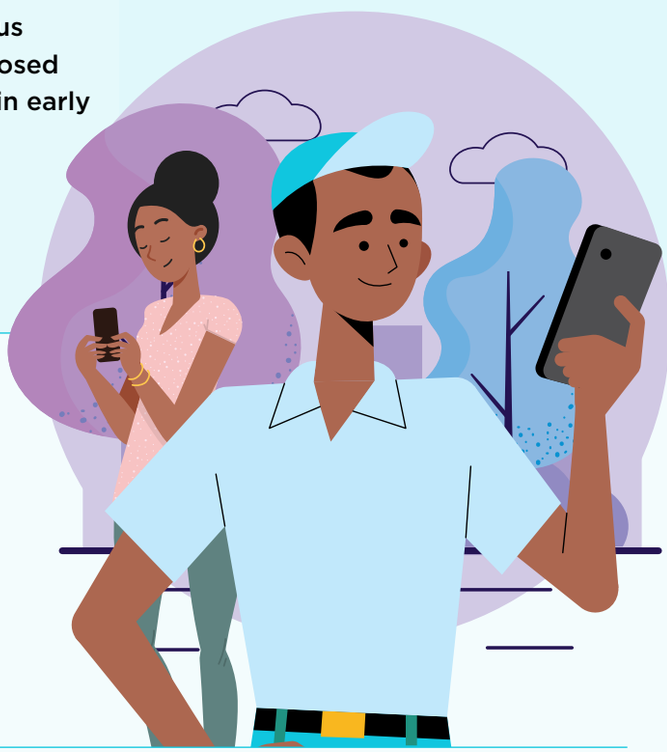
Laboratory Diagnostics: A Practical Approach by Jeanine M. Walenga and Denise M. Harmening



Are You a Diagnostic Detective?

Q: Which infectious disease was diagnosed using a 'sniff test' in early medical history?

A. Typhoid
B. Plague
C. Tuberculosis
D. Cholera



Your Turn:

#VoicesOfDiagnostics

Send a selfie from your lab, field work, or training session with the hashtag #VoicesOfDiagnostics and a short caption. You could be featured in the next issue! Email to: Nngailo@aslm.org

Thank you our readers

Thank you for amplifying the voice of diagnostics with us.
Share your diagnostic impact story or innovation by emailing labvoice@aslm.org

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