

Profile of GLESSN

Global Laboratory and Epidemiology System Strengthening Network(GLESSN), formerly named Caribbean Regional Laboratory and Epidemiology Network (CALEN), was founded in 2012. It is incorporated as a limited liability company under the Companies Act of Jamaica. GLESSN has experience working with the Centers for Disease Control and Prevention (CDC), Ministries of Health (MOHs), National Public Health Laboratories, American Society for Clinical Pathologists (ASCP), African Society for Laboratory Medicine (ASLM), African Field and Epidemiology Systems Strengthening Network (AFENET), Caribbean Regional Organization for Standards and Quality (CROSQ) and other partners across the Caribbean region, since its inception in 2012. These collaborations have been extremely successful in helping to achieve our goals and objectives.

Spanning 2012 - 2020, GLESSN has worked for United States Centers for Disease Control and Prevention under the U.S President's Emergency Plan for AIDS Relief (CDC/PEPFAR) through sub-contracts to support improvement in HIV Rapid Testing and QMS activities in Jamaica, Trinidad and Tobago, Barbados and Guyana. In 2020, GLESSN became the CDC's Implementing partner for Laboratory Strengthening in the Caribbean. GLESSN assists Caribbean nations in building strong, effective, and sustainable capacity in laboratory science; focused on strengthening quality improvement, accreditation preparedness, managing lab data for surveillance, preparedness for outbreak investigation, and institutional workforce development. Our mission is to assist governments to strengthen the public health sector by building long-term and sustainable laboratory systems to effectively combat multiple diseases and emerging epidemics.

GLESSN's competent staff have, on average, more than 20 years of experience in quality management, laboratory operation, testing methodologies and disease surveillance, coordinating projects at the national and regional level. Staff hold qualifications in Microbiology, Molecular Microbiology, Public Health, Medical Technology, Laboratory operations, Project and Quality Management. In addition, staff hold international certification in quality and technical management and are certified laboratory lead and technical assessors with extensive knowledge of ISO 15189 and College of American Pathologists (CAP) requirements. We have staff who are trainers in Strengthening Laboratory Management Towards Accreditation (SLMTA) and have been involved in the organization and implementation of successful regional and in-country training programs for laboratory staff. Staff have an excellent record of accomplishment in QMS development and preparation for accreditation, HIV Rapid Testing, HIV Rapid Testing Quality Improvement Initiative (RTQII), LIS implementation, External Quality Assessment and Quality assurance for HIV testing, Viral load network scale up, and Laboratory Quality Management System Stepwise Improvement Process (LQMS-SIP) throughout the Caribbean region.

Building Sustainable Laboratory Systems and Strengthening Laboratory Networks

Mentors working for GLESSN have years of quality improvement experience having supported public sector laboratories in Bahamas, Suriname, Barbados, Jamaica, and Trinidad and Tobago to prepare for, to apply and to achieve accreditation against the requirements of the ISO 15189 International standard. The technical assistance has resulted in the accreditation of 12 laboratories including CARPHA, the UHWI Jamaica and Reference Laboratories in 5 countries. Work is currently ongoing at three (3) public sector labs to bring them to Accreditation by 2025. Staff has provided technical assistance in development of quality management systems to three private laboratories, one of which was awarded international accreditation in May 2017. GLESSN has been performing assessments under the CDC/PAHO Caribbean Laboratory Quality Management- Stepwise Improvement process (LQMS-SIP) for laboratories in Barbados, Suriname, Trinidad and Tobago, Jamaica and Guyana over the past few years. Staff also have prior experience using the Stepwise Lab Improvement process toward Accreditation (SLIPTA) checklists in other Caribbean countries including Bahamas, St. Lucia, St. Kitts and Nevis, Grenada, St. Vincent and Grenadines, Dominica, and Grenada, which formed the foundation for the Caribbean LQMS-SIP. Staff also currently function as either management or technical assessors for Jamaica's national Accreditation body (JANAAC), when needed.

Developing Policies, Programs and Tools for Integrated Diagnostic Networks

GLESSN has established a strong working relationship with the Ministries of Health (MOHs) within the region and through this mechanism has been able to execute and successfully complete several improvement initiatives. The operation of GLESSN has been instrumental in providing subject matter expertise to produce and finalize the national HIV Testing Policy in Jamaica and assisted to harmonize HIV testing in Jamaica and Trinidad and Tobago. Through GLESSN's support, the MOHs have trained numerous HIV rapid testers and conducted refresher programs for the HIV quality assurance process. Significant achievements have been seen in all sites, showing continuous quality improvement in their operations.

GLESSN has guided the development of National Laboratory Strategic Plans for a total of twelve (12) countries from as early as 2015. MOHs across the Region have practiced operating the public health system through a tiered process, with the laboratories containing the most complex instruments being at the apex. Through, GLESSN's support the National Public Health Laboratory in Jamaica benefitted from the establishment of genomic sequencing laboratory with the capacity for detecting zoonotic diseases. The goal is the establishment of genomic test networks across the Region.

GLESSN provides support to countries to identify affordable diagnostic options. The institution is also instrumental in providing technical assistance in developing algorithms such as the Rapid Test HIV algorithm which is currently in use in the Caribbean countries. GLESSN is also well experienced in the development of tools to ensure that the diagnostic networks are responsive to future public health threats. This includes the viral load dashboard which allows for efficient monitoring of the viral load systems and sample referral networks and the Stepwise Improvement Process for Rapid Testing (SPI-RT) checklist which is instrumental in the continuous improvement of HIV Rapid testing. The electronic proficiency testing (ePT) tool is now being facilitated in Jamaica and Trinidad and Tobago to manage and track PT performance electronically across all testing.

Capacity Building

Capacity building and technical assistance are built into all components of services offered by GLESSN. Training is provided to laboratory and other public health practitioners which is focused on developing the skills of the laboratory and health system workforce. GLESSN also offers continuous improvement training through partnerships with the Clinical and Laboratory Standards Institute (CLSI) and the Caribbean Regional Public Health Agency (CARPHA). This includes biosafety and biosecurity, risk management and quality control, estimation of measurement uncertainty and ISO 15190 standard requirements. Our key priority remains to offer support while facilitating the transition of programs to local oversight, and strengthening financial, operational, technical, and programmatic control.
