Terms of Reference

Regional

Antimicrobial Resistance Laboratory Technologist
Jamaica

1.BACKGROUND

The Caribbean Public Health Agency (CARPHA), as the lead regional public health agency and an expression of Caribbean Cooperation in Health, is mandated by its Inter-governmental Agreement (IGA) to support its 26 Member States in bolstering national systems and coordinating regional response to public health threats. CARPHA has established programs for pandemic prevention, preparedness and response (PPR) and coordination (Communicable Diseases, Emergency Response, Tourism and Health, Foodborne, Vector-borne, and Field Epidemiology) and serves as the Regional Reference Laboratory. The Agency works closely with regional and international agencies and uses regional mechanisms, surveillance systems, and networks for coordinating its public health response work. CARPHA is competent in all three areas of PPR and has a successful track record of the same, as demonstrated by its regional COVID-19 response. The Agency is uniquely positioned for successfully implementing PPR capacities in the region, and to leverage its coordinating ability to encourage complementarity.

The Caribbean Public Health Agency (CARPHA) recognizes these risks and is leading the regional response through its Integrated AMR Program, which aligns national and regional efforts to combat resistance and strengthen surveillance across human, animal, and environmental health sectors. CARPHA's integrated AMR program will have four strategic objectives:

1. Establish a regional integrated (human, environmental and animal) AMR surveillance program
2. Strengthening Laboratory Capacity
3. Promoting Responsible Antimicrobial Use and Stewardship
4. Fostering One Health Collaboration and Coordination

CARPHA, in collaboration with the UK Health Security Agency (UKHSA), is leading the development of an Integrated AMR Programme. This initiative is supported by funding from the Pandemic Fund and the Fleming Fund and seeks to establish a coordinated, multi-sectoral approach to AMR surveillance, laboratory capacity strengthening, antimicrobial stewardship, and One Health collaboration. A crucial element of this programme is the establishment of the Caribbean Antimicrobial Resistance Alliance (CARA), which will facilitate regional cooperation and engagement among CARPHA Member States (CMSs).

The Caribbean AMR Alliance (CARA) funded through the UK Department of Health and Social Care (DHSC) Fleming Fund to facilitate establishing CARPHA's laboratories as regional reference referral laboratories for AMR testing. The Alliance will:

- Serve as a regional coordination mechanism for AMR-related activities.
- Promote advocacy and capacity-building initiatives at CARPHA and CMSs.
- Facilitate policy alignment with international AMR strategies.

This Consultancy is concerned with*:* Strengthening and Expanding of Laboratory systems in CARPHA Jamaica Reference Laboratory, which seek an individual to function as the Antimicrobial Resistance Laboratory technologist

2. OBJECTIVE

The objective of the Antimicrobial Resistance Laboratory technologist is to carry out laboratory antimicrobial susceptibility testing on isolates sent from referring laboratories and institutions. They will carry out reference laboratory level tests to determine AMR mechanisms. They will assimilate data and upload it to the CARPHA AMR data base.

Their AMR work will support the development and implementation of the regional AMR surveillance program which is vital to public health, providing essential data and expertise to manage and mitigate the impact of resistant infections. Their work will assist to inform on infection control strategies, help shape guidelines for regional antimicrobial stewardship and expand AMR testing capacity by supporting clinical sample analysis and enhancing the One Health approach to AMR surveillance across human, veterinary, and environmental samples.

3. SCOPE OF SERVICES, TASKS AND EXPECTED DELIVERABLES

- Enhance laboratory capacity to detect and characterize antimicrobial-resistant organisms
- Conduct Microbial Culturing and Isolation
- Perform Antimicrobial Susceptibility Testing (AST)
- Perform Genomic and Molecular Analysis- Identify and implement molecular methods (e.g., PCR, sequencing) for AMR characterization where applicable.
- Support integration of human, animal, and environmental AMR surveillance.
- Interpret data on resistance patterns and preparing reports
- Use bioinformatics tools to analyse genetic data, track resistance trends, and identify resistance mechanisms
- Ensure quality assurance and compliance with international laboratory standards.
- Collaborate with partner institutions and organizations to support the establishment of regional AMR surveillance hubs.
- Training laboratory staff on AMR testing techniques, including sample handling, processing, and data reporting.
- Providing technical guidance to laboratory personnel to ensure adherence to SOPs and AMR testing protocols.
- Work with Project Director to ensure the pandemic funds activities are implemented in alignment with what is required by the relevant department leads.
- Interact with CARPHA departments and CARPHA Member States, international experts and other stakeholders in accordance with the Projects Operations Manual, including aligning to CARPHA's communication protocols with MS and other stakeholders.
- Other duties that may be implied in the contract or assigned by the Project Director, CARPHA.

4. QUALIFCATIONS AND EXPERIENCE

Academic Qualification

- University degree in Medical Microbiology, Molecular Biology, Biomedical Science, or a related field.

General Professional Experience:

- Ability to train and mentor laboratory personnel.

- Knowledge of biosafety and biosecurity standards.
- Ability to work under pressure and meet tight deadline

Specific Professional Experience:

- Minimum 3-5 years in a medical laboratory setting, with hands-on experience in AMR testing. Experience in a One Health or multidisciplinary setting is highly desirable.
- Proficiency in testing protocols for AMR, including phenotypic testing and PCR.
- Strong data management skills and familiarity with laboratory information systems.
- Ability to communicate effectively with diverse stakeholders.
- Excellent problem-solving skills and ability for critical thinking.
- Working knowledge of Microsoft Office - Word, Excel, PowerPoint, SharePoint, MS Project, etc.

5. MANDATORY COMPLIANCE:

6. CHARACTERISTICS OF THE CONSULTANCY

Type of Consultancy: Individual

Duration: June 2025 to March 31st , 2026 (first 6 months probationary)

Place of Work: Caribbean Public Health Agency (CARPHA) Kingston, Jamaica

- Working Language: English

7. CLIENT'S INPUT AND COUNTERPART PERSONNEL

The Client shall ensure that all consultants are supported and equipped. In particular, the Client must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. The Client will provide office accommodation, internet connectivity for use during this consultancy and all currently available data, information, documentation and reports to inform assessment, consultations and recommendations. The Consultant shall be required to provide his/her personal computer.

8. REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIEVERABLES

All payments will be made upon submission and acceptance of monthly invoices and timesheets by the Project Director (CARPHA Technical Lead) or designate.

9. COORDINATION

The **Antimicrobial Resistance Laboratory** Technologist will report to the Technical Advisor who will in turn report to the Project Director (CARPHA Technical Lead)/designate. The Technical Advisor will

be responsible for the coordination of activities under the contract, for accepting and approving reports on behalf of CARPHA. The Project Director will be responsible for receiving and approving invoices for payment, and preparing performance evaluation reports.

The **Antimicrobial Resistance Laboratory Technologist** is expected to collaborate, liaise or meet as required with specialist team members in the PEU, CARPHA's UKHSA personnel, assigned subject matter experts, executives and stakeholders as needed.

Annex 1: Evaluation Criteria

Selection Component	Evaluation Criteria	Maximum Points
1. **Academic Qualifications**	Advanced degree in Medical Microbiology, Molecular Biology, Biomedical Science, or a related field	25
2. **Required Experience**	Minimum 3-5 years in a laboratory setting, with hands-on experience in AMR testing. Experience in a One Health or multidisciplinary setting is highly desirable.	15
	Proficiency in testing protocols for AMR, including phenotypic testing and PCR.	15
	Strong data management skills and familiarity with laboratory information systems.	10
	Ability to communicate effectively with diverse stakeholders.	5
	Excellent problem-solving skills and ability for critical thinking.	5
3. **Specific Professional Experience**	Ability to train and mentor laboratory personnel.	10
	Knowledge of biosafety and biosecurity standards.	5
	Ability to work under pressure and meet tight deadlines	5
	Knowledge of the health situation in the Caribbean	5
Total Points		**100**