



# PAHO



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# Highlights from the End-of-Project Evaluation: Strengthening Antimicrobial Resistance (AMR) Surveillance and Response in the Caribbean

Antimicrobial resistance (AMR) is a growing public health and health security challenge in the Caribbean. Despite strong policy commitments and the adoption of National Action Plans, many countries continue to face structural constraints that limit their ability to generate, analyze, and use AMR surveillance information. Common challenges include limited microbiology and diagnostic capacity, shortages of specialized personnel, fragmented information systems, constrained fiscal space, and heavy dependence on external supply chains for laboratory supplies and technologies. These challenges are particularly acute in Small Island Developing States (SIDS), where economies of scale are limited and specialized services are difficult to sustain independently.

The Fleming Fund Caribbean Regional Project was implemented by the Pan American Health Organization (PAHO) between 2024 and 2026 to strengthen AMR surveillance and response capacity across ten ODA-eligible Caribbean countries. Building on PAHO's longstanding technical cooperation in AMR, the project combined investments in laboratory diagnostics, workforce development, quality assurance, surveillance systems, governance, and regional collaboration. The project sought to strengthen national capacities while also creating regional public goods and shared technical resources to overcome scale and sustainability constraints faced by many Caribbean countries.

## Key Findings and Conclusions

**1. The project was highly relevant and strategically aligned with national needs and subregional AMR agendas.** It responded directly to shared national and regional priorities by addressing critical constraints in diagnostic capacity, workforce, quality assurance, data systems and access to laboratory supplies through a regional model suited to the Caribbean context.

**2. The strongest results were achieved in laboratory strengthening.** Investments in diagnostic technologies, quality systems, supplies, and workforce capacity improved the speed, reliability, and reach of microbiology services, thereby supporting AMR surveillance, clinical management, IPC, and antimicrobial stewardship.

**3. Regional cooperation generated significant added value.** The regional approach expanded access to shared expertise, reference laboratory functions, training and peer support, while strengthening institutional collaboration and PAHO's platform for coordinating future AMR initiatives in the Caribbean.

**4. AMR data production improved more rapidly than data use.** This was partly because of the use of "escape clauses", which are provisions that allow for exceptions or adjustments to budget reductions. These clauses helped to mitigate the impact of the reductions, making them less severe than originally intended.

**5. Sustainability prospects are positive but conditional.** The capacities established provide a strong foundation for continuity, but sustaining them will depend on recurrent financing, reliable supplies and maintenance, workforce retention, interoperable information systems and integration into routine national and regional arrangements.

## Overall assessment

### What changed?

While AMR was already recognized as an important public health priority across the Caribbean, many countries faced challenges in translating policy commitments into operational surveillance capacity. The project helped bridge that gap by strengthening the systems, partnerships, and technical capacities needed to move from planning to action.

- The project contributed to a **significant modernization of the regional laboratory landscape**, most visibly through investments in advanced diagnostics, quality systems, workforce development, and technical support, strengthening countries' ability to detect, monitor, and respond to AMR.
- **Microbiology services became faster, more reliable, and better connected to clinical practice**, supporting earlier identification of pathogens, timelier reporting of results, and more informed healthcare management decisions. Patients and clinicians are already benefiting from these improvements.
- **The region is now substantially better equipped to generate AMR surveillance data**, participate in regional and global surveillance initiatives, and monitor resistance trends over time, although routine analysis, integration and use of this information remain uneven.
- **Regional cooperation became stronger and more operational**, expanding access to specialized expertise, reference laboratory functions, peer learning, technical support networks, and communities of practice. The project also strengthened collaboration between PAHO, CARPHA, and national institutions, creating a stronger platform for future AMR initiatives.

- **Progress toward institutionalization varied across countries**, reflecting different starting points and levels of readiness. In several settings, project-supported functions are increasingly integrated into routine systems and national AMR structures, providing a stronger foundation for long-term sustainability, while others remained dependent on external support or individual champions.

#### What has not changed?

- Stronger diagnostic capacity and increased **AMR data generation have not yet translated consistently into surveillance intelligence and routine use** for clinical, programmatic and policy decisions.
- The transition from strengthened human-health AMR surveillance to **a fully operational One Health model remains limited**, as routine data sharing, joint analysis and coordinated decision-making across sectors are not yet systematically established.
- **Equitable access to AMR diagnostics** has expanded in several settings, but **remains uneven across the Caribbean**, particularly beyond national reference laboratories where staffing, supply chains, maintenance, information systems and quality assurance continue to constrain service availability.

## Lessons learned

**Lesson 1.** Laboratory strengthening is most effective when delivered through integrated capacity packages that combine technology, workforce development, quality systems, supplies, and ongoing technical support.

**Lesson 2.** Regional approaches generate greater value when shared functions such as reference laboratory support, training, and technical cooperation are supported by clear operating arrangements and coordination mechanisms.

**Lesson 3.** AMR diagnostics and surveillance data do not automatically translate into public health action. Intentional investments in interoperability, analysis, reporting, and decision-making pathways are required.

**Lesson 4.** Adaptive implementation capacity is essential in geographically dispersed and operationally complex settings where logistics, procurement, infrastructure, and contextual realities vary considerably across countries.

**Lesson 5.** Workforce gains are more likely to endure when training is reinforced through mentoring, peer-learning networks, communities of practice, and mechanisms to preserve institutional knowledge.

## Recommendations

**1. Strengthen regional and national AMR data systems, interoperability and surveillance intelligence.** Develop a regional roadmap for AMR data governance, interoperability and surveillance intelligence under the PAHO AMR Action Plan 2027-2031, building on investments in WHONET, ReLAVRA+, laboratory information systems and regional reporting platforms.

**2. Institutionalize sustainability of laboratory and surveillance capacities.** Support countries in transitioning project-supported capacities into sustainably financed and institutionally embedded national systems, including through sustainability planning, pool procurement mechanisms such as the Strategic Fund, workforce retention strategies, and maintenance arrangements.

**3. Strengthen the routine use of AMR surveillance information for stewardship, IPC and public health decision-making.** Expand technical cooperation efforts aimed at strengthening data interpretation, analysis, reporting and use in health-related, programmatic and policy processes.

**4. Consolidate regional laboratory networks, reference functions and workforce learning mechanisms.** Strengthen ReLAVRA+, reference laboratory functions, peer-learning arrangements, technical support networks, and the role of institutions such as the Best Dos Santos Public Health Laboratory and regional WHO Collaborating Centers.

**5. Use strengthened AMR surveillance capacities as a platform for progressive One Health implementation.** Build on the human-health gains achieved through the project to advance multisectoral surveillance collaboration and the implementation of One Health objectives under the PAHO AMR Action Plan 2027-2031.

**6. Institutionalize governance, communication and implementation management mechanisms for regional AMR initiatives.** Future regional AMR initiatives should build on the collaboration and partnerships established through the Fleming Fund project while addressing recurring coordination challenges identified during implementation. Particular attention should be given to clarifying roles and responsibilities, strengthening communication flows across levels, and improving visibility of implementation, procurement and decision-making processes for all stakeholders involved.

The evaluation was conducted between May and July 2026 by the PAHO Evaluation team using a mixed-method, theory-based approach. Evidence was drawn from a review of project documentation, monitoring and evaluation data, financial and asset records, strategic frameworks, and 35 key informant interviews conducted across participating countries and at the regional level, representing a 92% response rate among invited stakeholders. Interviewees included PAHO headquarters and country offices, Ministries of Health, public health laboratories, hospitals, CARPHA, UKHSA, private-sector partners, and a WHO Collaborating Center. Findings were developed through systematic triangulation of documentary and interview evidence.

## Contact

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