

Synergies for Universal Health: Leveraging PAHO's Flagship Initiatives and the Role of PAHO/WHO Collaborating Centres



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BRA-65 - WHO Collaborating Centre for Leptospirosis

Institutions: Oswaldo Cruz Institute/Oswaldo Cruz Foundation (FIOCRUZ) and Pan American Center for Foot and Mouth Disease and Veterinary Public Health (PANAFTOSA-PAHO/WHO)*

Martha M. Pereira, PhD, Kátia E. S. Avelar, PhD, Ilana T. Balassiano, PhD, Baldomero Molina-Flores,* Marco A. N. Vigilato*

How the Collaborating Centre is contributing or can contribute in the future to the achievement of the PAHO Flagship Initiative

Leptospirosis is a global zoonosis with epidemic potential and high fatality rates. The PAHO/WHO Collaborating Center for Leptospirosis is located at the Oswaldo Cruz Institute, the main technical-scientific unit of FIOCRUZ, in Rio de Janeiro, Brazil. It is a laboratory specialized in the field of leptospirosis.

The main cooperation and technical-scientific actions that supported PAHO initiatives were:

1. Maintenance of an international collection of *Leptospira* reference strain cultures provided by the former Pan American Center for Zoonoses (CEPANZO), Argentina. New isolates were obtained through research projects or as a result of cooperation with reference laboratories in Brazil or other countries. The collection is useful for identifying new emerging pathogens.
2. Implementation of new diagnostic techniques that show promising potential or allow substantial improvements in the epidemiological surveillance of leptospirosis at the national, regional, and global levels. The PAHO/WHO CC serves as the National Reference Laboratory for Leptospirosis.
3. Assist in the implementation of new diagnostic techniques by offering in-person and online training courses.
4. The PAHO/WHO CC also contributes to PAHO's Flagship Initiatives and Synergies for Universal Health by offering training courses on leptospirosis prevention and preparedness.
5. Collaborate on the PAHO operational guide for "Leptospirosis Surveillance and Control."

Main Deliverables (period of 2022-present, as per the Workplan)

Key Recommendations to improve the collaboration among CCs and PAHO/WHO

Culture Collection, Diagnostic Services and Capacity Building:

- 1. Culture Collection:** A total of 629 cultures of *Leptospira* were renewed by sub cultivation in EMJH semi-solid and liquid media, examined by dark-field microscopy and subjected to purification processes and identification according to the needs. The donation of reference cultures for diagnostic, research and technological development purposes is followed by a request and relevant information. Visit website: <https://clep.fiocruz.br/>
- 2. Short Training Courses:** In the period 2024-2025, a total of 5 (five) training courses on Leptospirosis diagnosis by Microscopic Serum Agglutination Test (MAT) and Real-Time PCR (qPCR) were carried out. They were carried out in partnership with the Secretariat for Health and Environmental Surveillance of the Ministry of Health, Brazil.
- 3. Distance Learning Course (EAD):** An online course entitled "Leptospirosis - Transmission, Diagnosis and Prevention" was developed in the EAD format. It was carried out in three modules, totaling 30 hours. A total of 13,588 participants were enrolled, from 27 states and 1,448 cities in the Brazilian federation. See on the FIOCRUZ Virtual Campus <https://campusvirtual.fiocruz.br/gestordecursos/hotsite/leptospirosetdtp>
- 4. Diagnostic Services:** A total of 3,279 samples were processed for leptospirosis diagnosis by the Microscopic Agglutination Test (MAT) and a total of 1,180 samples were tested by Real Time PCR (qPCR).

1. The collaboration with the other WHO Collaborating Centres for Leptospirosis should be narrowed and strengthened aiming at the development and establishment of methods for identifying new clinical isolates based on the use of DNA sequences or the complete genome of *Leptospira* spp and other common challenges.
2. Continue strategies that promote closer ties between Collaborating Centers and PAHO. The recent calls for participation in the development of strategic plans and the regional webinar are examples of initiatives that facilitate and expand collaboration opportunities.



WHO CC Leptospirosis receives visit from the Ministry of Health of Ecuador (05/05/2025).

General Scope (Terms of Reference)

- 1. TOR 1** At PAHO/WHO's request the proposed institution will support PAHO/WHO's work in maintaining and safeguarding *Leptospira* reference strains.
- 2. TOR 2** At PAHO/WHO's request the proposed institution will support PAHO/WHO's work by providing reference diagnostic services and capacity building to support surveillance systems.



Technical visit by PAHO consultants Baldomero Molina-Flores and Marco A. N. Vigilato to the WHO Leptospirosis Center.