

PAHO



WHO



**NETWORKS FOR
EMERGING INFECTIOUS
DISEASES (EID) IN THE
AMAZON AND
SOUTHERN CONE
REGION**



The Amazon Region



AMAZON REGION NETWORK

OBJECTIVE

To create a functional network of laboratories within the greater Amazon Region able to obtain accurate, high quality laboratory results on new, emerging and reemerging infections found in the Region

AMAZON REGION NETWORK

Development issues

- **Accurate laboratory results**
- **Prompt information sharing**
- **Strong linkage to epidemiological studies**
- **Common protocols to address specific diseases**
- **Forum for rapid technology transfer**

INTEGRATION OF THE NETWORK TO THE NATIONAL SURVEILLANCE SYSTEM

- Information generated by the network should be available to the local, state and federal health System.**
- The network will contribute to the identification and control of risk factors.**
- The epidemiological studies conducted by the network must improve knowledge about health problems.**

Network for Surveillance of Emerging/Reemerging Infectious Diseases

The Amazon

**Strengthening surveillance for
dengue , malaria, and yellow fever**

Reagent production and lab training

Sindromic approach to surveillance

Southern Cone Network

- **Influenza**
 - **Antimicrobial resistance, including *M. Tuberculosis***
 - **Hemorrhagic Diarrheal Syndrome (HUS)**
 - **Hantavirus Pulmonary Syndrome**
- OPS/OMS



FUNDING

- National Health Systems/ Ministries of Health.
- Medical Branch, University of Texas.
- Naval Medical Research Institute/DOD
- PAHO
- USA/CDC
- Canada/LCDC

EVALUATION

1. Meet annually to discuss progress in implementing common projects and protocols.
2. An evaluation model based on the successful example of the Southern Cone Subregional project to eliminate *Triatoma infestans* was chosen.

REFERENCE CENTERS

- 1. National Center for tropical Diseases (CENETROP) Bolivia**
- 2. National Institute of Health Laboratories (INLASA) Bolivia**
- 3. Evandro Chagas Institute - Brazil**
- 4. Institute of Tropical Medicine of Amazon - Brazil**
- 5. Oswaldo Cruz Foundation - Brazil**
- 6. Adolfo Lutz Institute - Brazil**
- 7. National Institute of Health - Colombia**
- 8. National Institute of Health - Peru**
- 9. National Institute of Hygiene “Rafael Rangel” - Venezuela**
- 10. National Institute of Carlos Malbran - Argentina**
- 11. Institute of Public Health - Chile**
- 12. Research Institute in Health Sciences - Paraguay**
- 13. Public Hygiene Laboratory - Uruguay**

Network for Surveillance of Emerging/Reemerging Infectious Diseases The Amazon

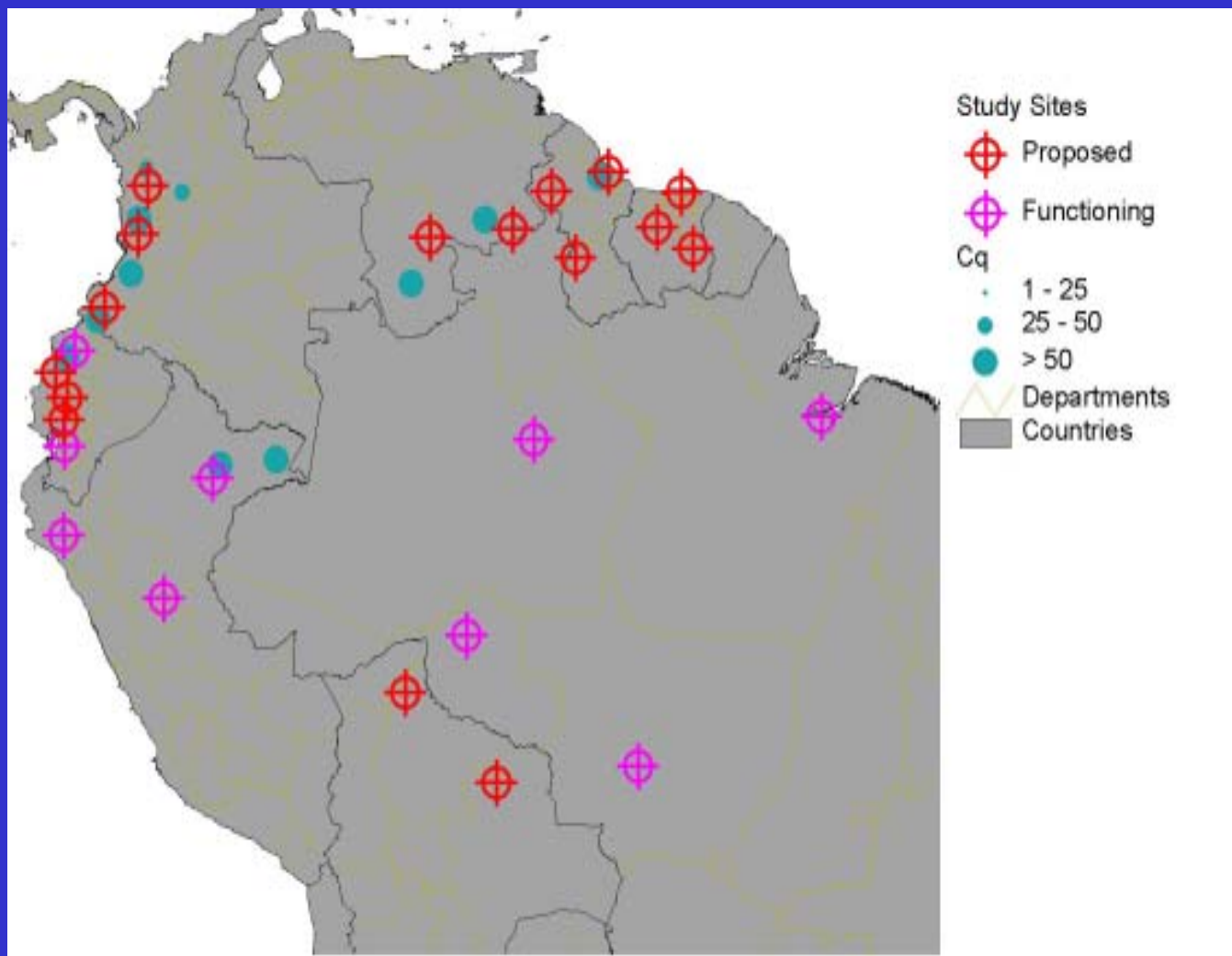
Activities:

- i. Training in yellow fever diagnosis and distribution of reagents**
- ii. Four countries have in place surveillance of antimicrobial resistance to antibiotics.**
- iii. Sindromic surveillance is being tested/implemented in 5 countries.**
- iv. Malaria. Implementation of malaria drug treatment policy.**

First and Second Line Treatment of *P. falciparum* South America 1994-1999



Resistance to Chloroquine 1998-2000. Functioning and proposed study sites



Proposed Studies (2002)



Network for Surveillance of Emerging/Reemerging Infectious Diseases: Amazon and Southern Cone Regions

The Southern Cone

Activities:

Syndromic surveillance is being tested or implemented in 3 countries.

Common protocols are being used for surveillance of HPS, HUS, and influenza in all countries.

Surveillance of antimicrobial resistance on selected pathogens in community and hospital infections are being made in 5 countries.

Influenza: Southern Cone Network

May 2001

Expand the number of participating health personnel/sentinel sites

Increase the number of samples send to the WHO Collaborating Center (CDC)

Improve communications with *flunet* and among members of the influenza network

Prepare a plan on what to do in case of a pandemic

Southern Cone: Influenza Surveillance, 2001

National Reference Centers	Increased physician participation	Laboratory training	Virus Charact.	Samples send to WHO Coll. Center
Argentina Bs.As MdP Cordoba	Inst. of Ep.	Inst. of Ep.	ALL	3 X 74 1 X 11 1 X 21
Bolivia (not officially)	INLASA	***	Yes	None
Br. Belen Br. Río Br. SP	Belen Río SP	Belen	ALL	? 13 → Eng. 1 X 37
Chile	Natl. Inst. of Health	Natl. Inst. of Health	ALL	1 X 21
Paraguay	Central Pub Health Lab.	***	Yes	3 X 50
Uruguay	Central Pub Health Lab.		Yes	2 X 9
Total				223

*** *Training of physicians only*

• **Communication among countries :**

- Sporadic
- Good response by Eml

• **Coordination of activities:**

- Sporadic

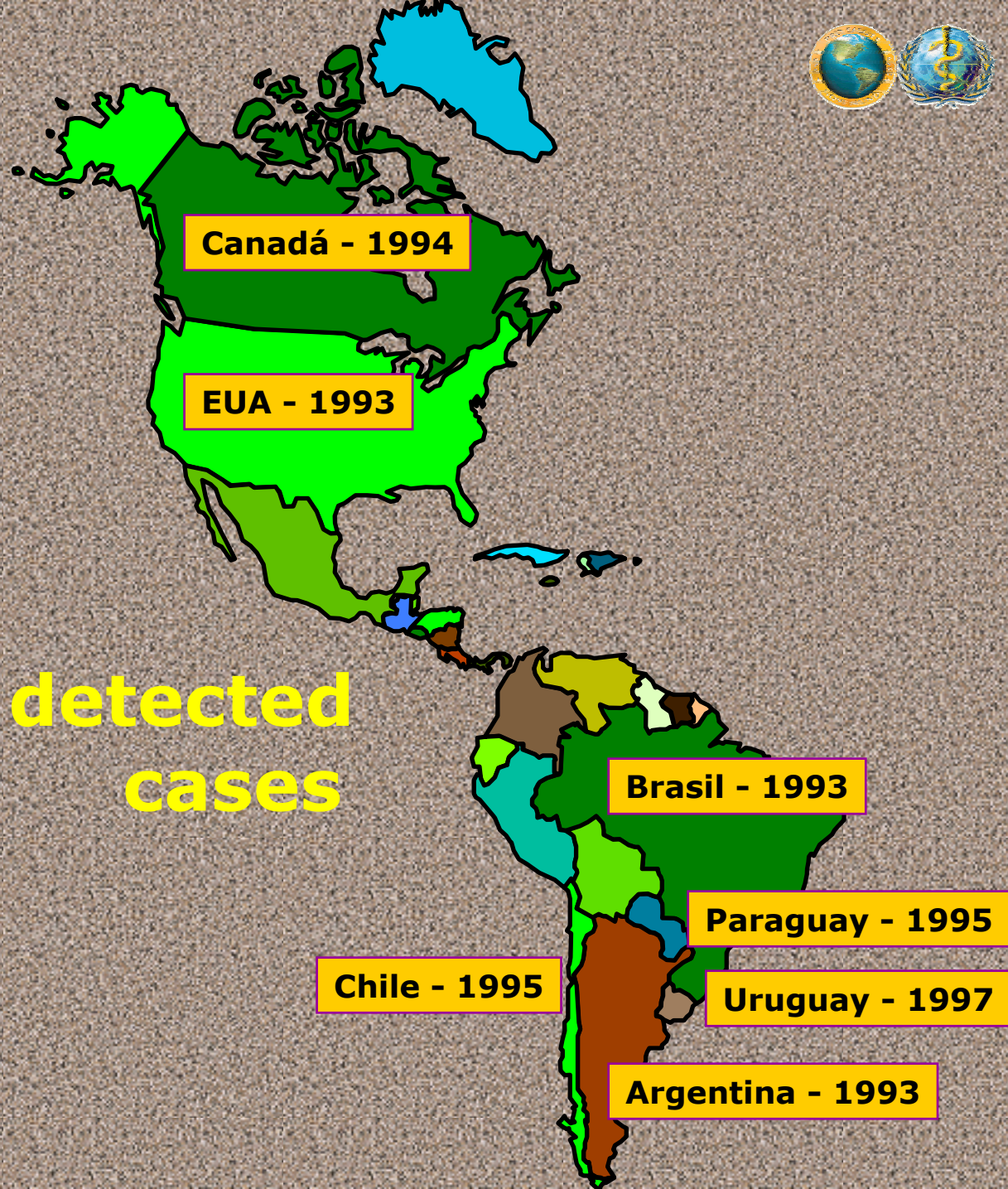
• **Collaboration among countries:**

Very good

- Argentina - Paraguay
- Argentina - Perú
- Chile - Bolivia



First detected cases





HANTAVIRUS PULMONARY SYNDROME CASES

THE AMERICAS 1993 - 2001*

 = No. of cases

* Using preliminary data up to 12-31-01



Hantavirus: Surveillance in the Southern Cone

- **Established in March 1998**
- **Develop testing capacity in all countries**
 - **-capture IgM and**
 - IgG ELISA-Andes**
- **Tecnology transfer for PCR from reference Laboratory in Argentina to Chile and Brazil**

Hantavirus: Surveillance in the Southern Cone

- *Provide training in rodent capture*
- *Molecular Epidemiology*
- *Quality Control for reagents*

PAHO

**CDC
LCDC**

Member countries

- **NAMRID**
- **WRAIR**

