



Regional Response to COVID-19 during 2020-2022 Considerations for better preparing for the next Pandemic ...

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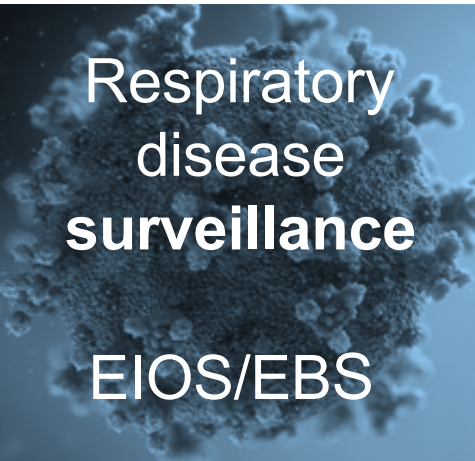
Lessons learned at regional level

- ➔ **Epidemic Intelligence & Integrated Surveillance**
- ➔ **Public Health & Research Laboratories Networking**
- ➔ **Resilient Health Systems**
- ➔ **Regional Mechanisms for Vaccine Production & Delivery**
- ➔ **Human, Animal & Environment Interface**



Epidemic Intelligence

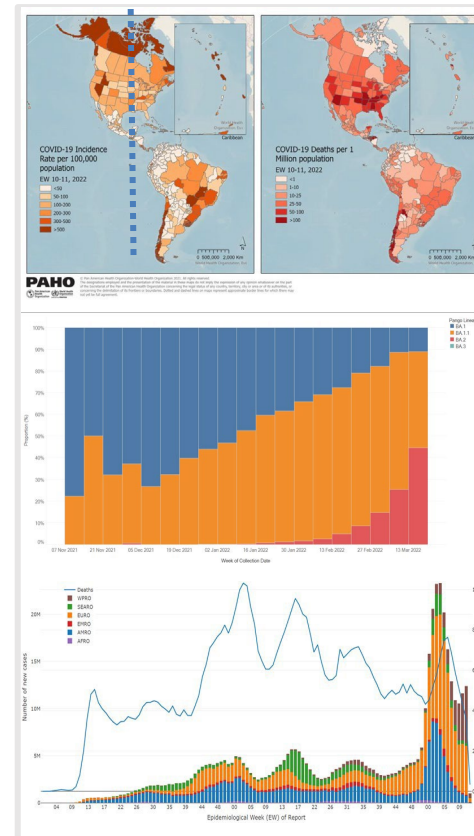
Epidemiological
dynamics



Context
evaluation



Analysis and
modeling



Flexibility of Surveillance Systems for quickly including new pathogens

E.g. SARI-net Plus

4.413 SARI & 3.880 ILI sentinel sites

GISRS in the Americas



WHO Collaborating Center
US-CDC

29 National Influenza Centers
25 Countries / WHO members states



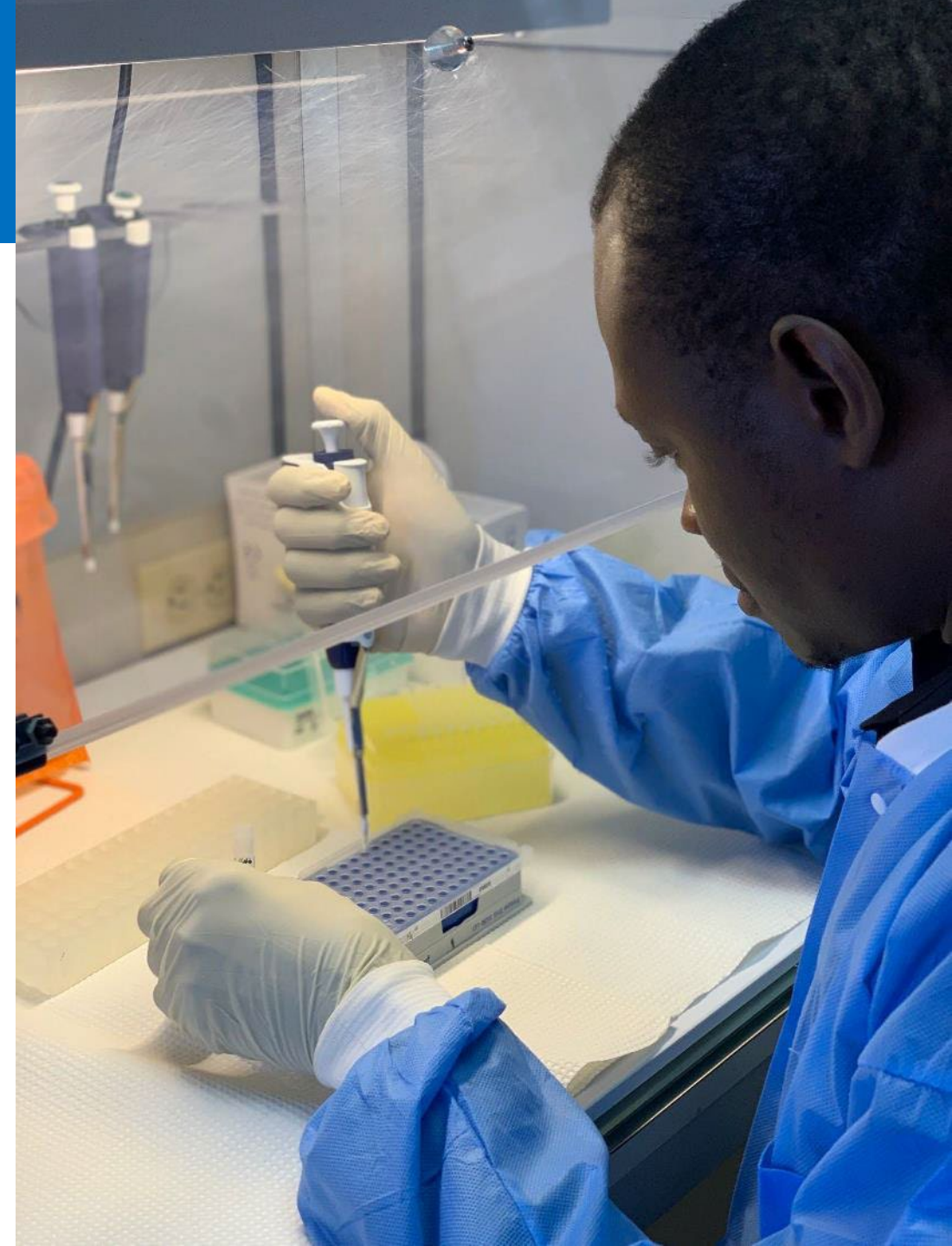
Source: <https://www.paho.org/en/topics/influenza-and-other-respiratory-viruses>



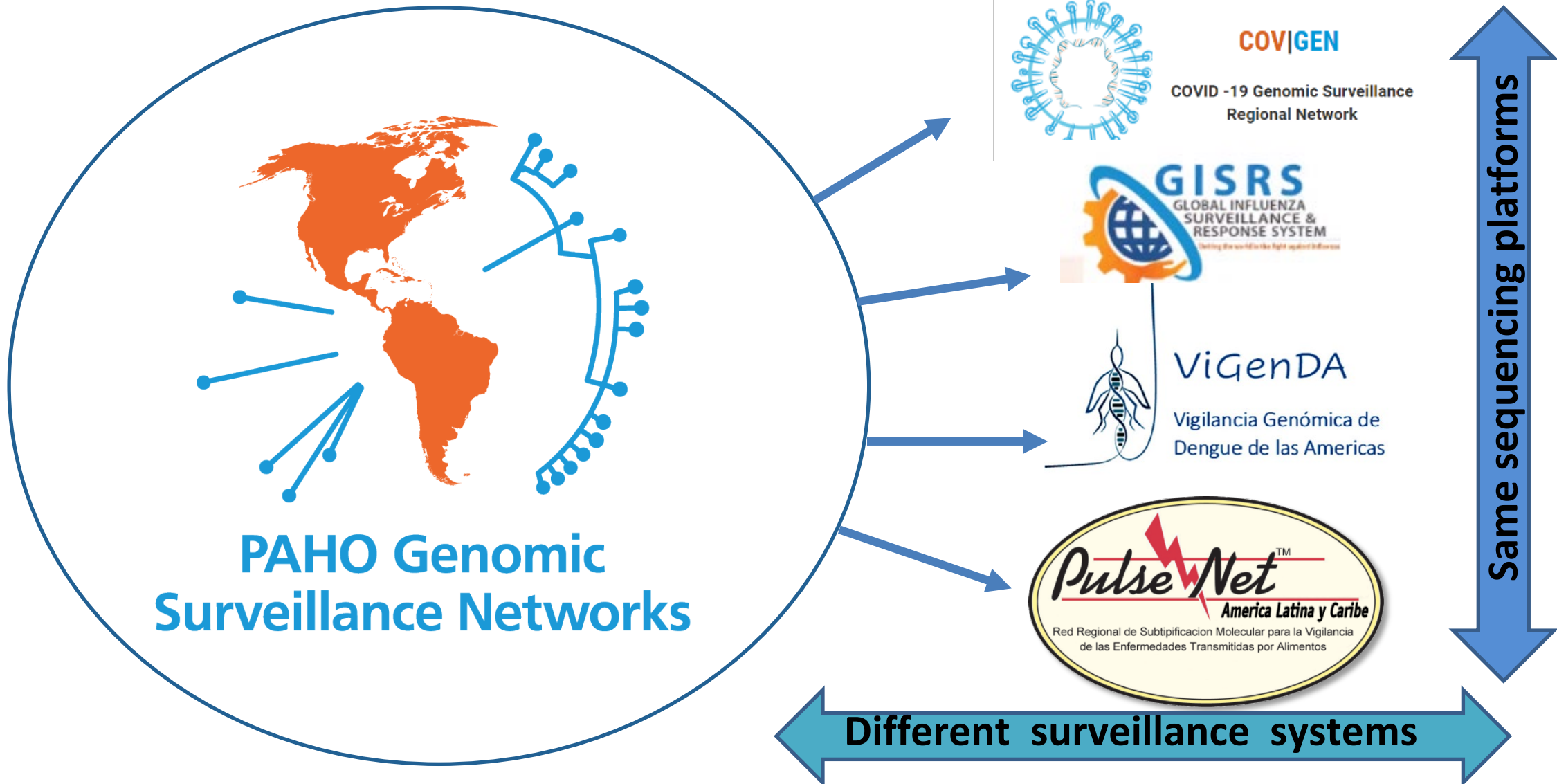
SARI-net plus
Severe Acute Respiratory Infections Network

Strategic activation of National laboratory Networks

- ➔ **First region** with installed capacities for molecular detection of SARS-CoV-2 **by early March 2020**
- ➔ **> 45 million** diagnostic tests delivered to **39** countries and territories **by November 2022**



Regional Strategy for Genomic Surveillance



Improving surveillance at the Human-Animal-Environment Interface

- Routine : (Hospitals, PHC etc)
- Outbreak: ex- Chaparé-like BOL

LABORATORY

IPC & CLINICAL MANAGEMENT

ANALYTICS

- Viral diagnosis: Ref Lab Network
- Bacterial diagnosis: Ref Lab Network
- Epi Intel
- Spatial analysis
- Bioinformatics & Epigenetics
- Modelling
- AI/ML

INTEGRATED SURVEILLANCE

(Flu/SARS-CoV-2/ORV)

Through sentinel sites:
SARInet, NIC, CC...
FluID, FluNet, FluMart

Expand to universal:
Include other health facilities (public / private)

INDICATOR HTP SURVEILLANCE

Viral:

- Hemorrhagic fevers: EE, ARNV, HANV, YFV...
- Arboviral: OROV, MAYV, CHIKV, ZIKV, YFV, WNV...

Bacterial: Plague, Lepto etc.

GENOMIC SURVEILLANCE

Capacities:
Improve monitoring genomic variations, data reporting and integration with surveillance.

Networks
GISAID, COVIGEN, GISRS, PulseNet.

SPILLOVER SURVEILLANCE

Wildlife:

- AHE integrated surveillance: YF, Influenza
- Risk assessment based on socioecological drivers'

Intensive farm productions:

- Target: pig, poultry, minks etc.
- Linking production disease data with human surveillance data

Trainings, in-country capacity building, guidelines, algorithms, collaborating centers/networks, partners, resources human and financial



Health systems and services

Critical capacity-building areas

Critical Areas:

First level of care

Clinical management

Commodities, logistics, and distribution

Rational and sustainable use of oxygen

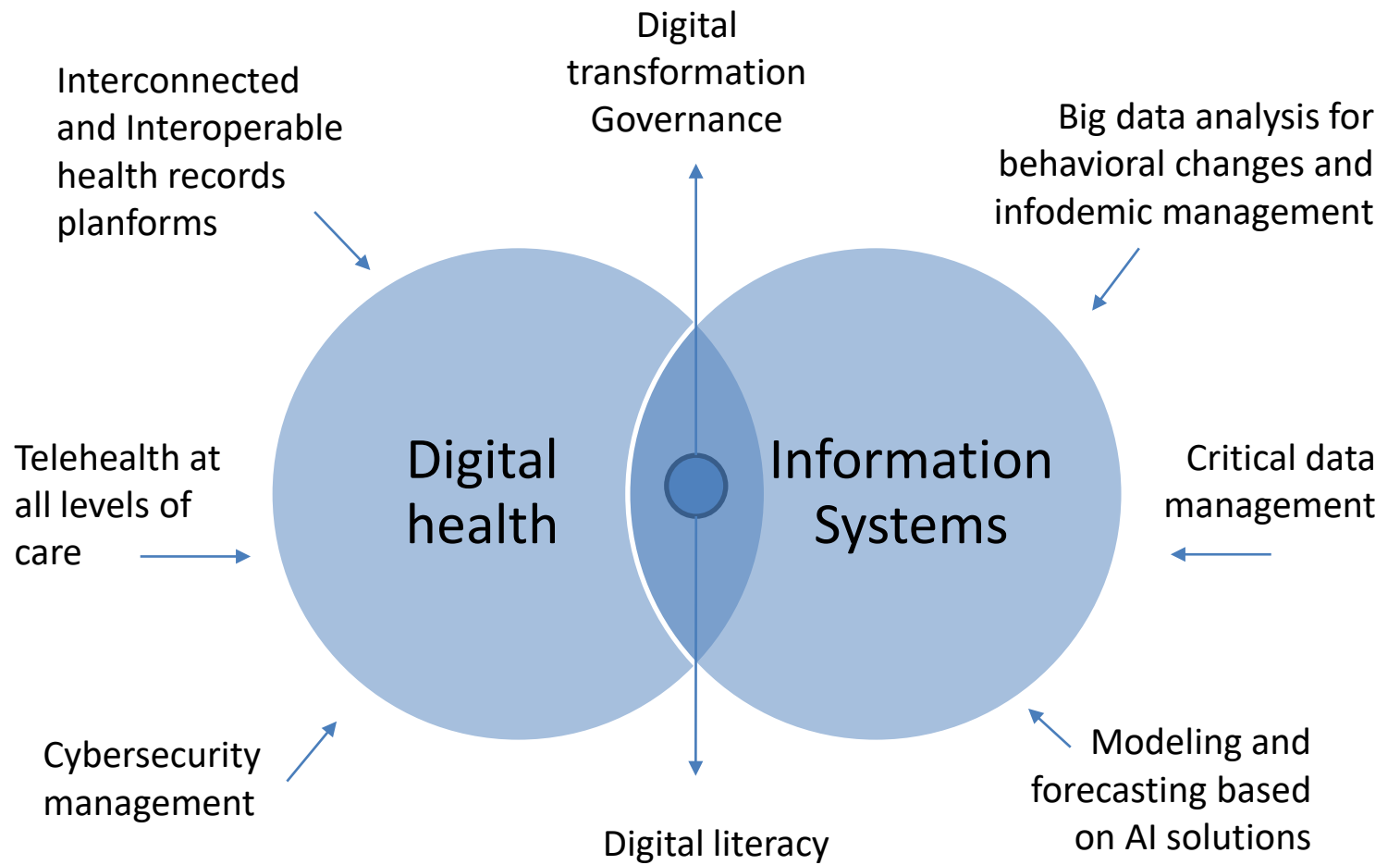
Infection Prevention and Control

Surge capacity



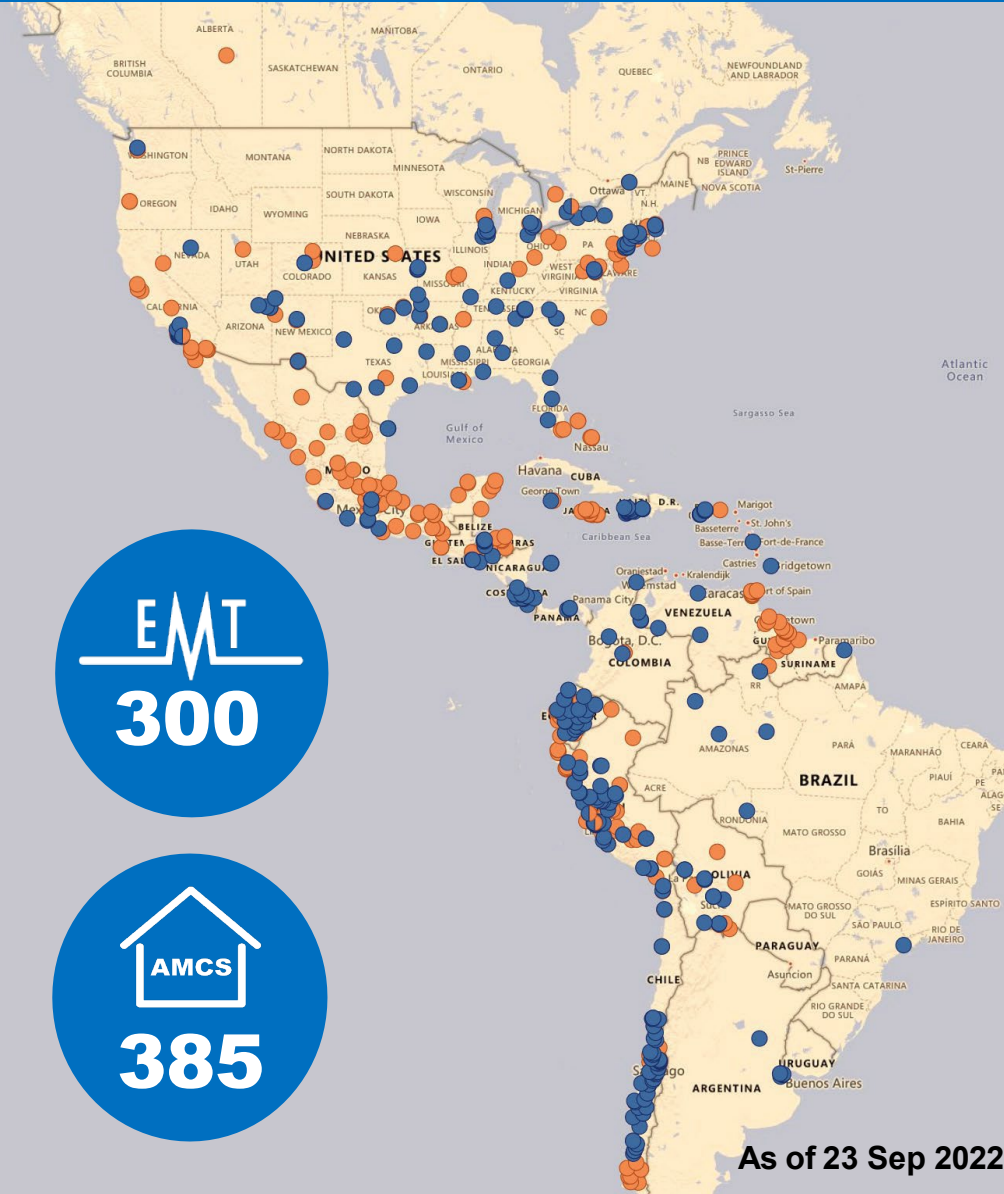
Information Systems and Digital Health

Critical areas for success



Medical surge capacity response 2020-2022

Emergency Medical Teams (EMT) and Alternative Medical Care Sites (AMCS)



60 Regional
EMT missions

50,552 
Inpatient beds

2,285 
Critical care beds

COVID-19 vaccination in the Americas



2.11b

COVID-19 vaccine doses
administered in the Americas

70.9%

proportion of fully-vaccinated
persons in Latin America and
the Caribbean

17

countries with coverage
rate >70%



512

shipments
delivered to 35
countries and
territories, **249**

shipments
including:

9M gloves



49.7M surgical and
respirator masks



3.3M gowns



4M face shields



>US\$300M

in diagnostic tests, PPE,
and medicines

to protect

>40M

people through PAHO's
Strategic Reserve for
Emergencies



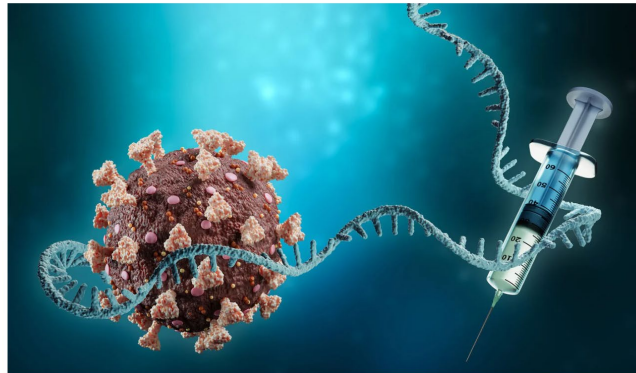
Promotion of development and production initiatives

Technology Transfer and development of mRNA vaccines



Latin American manufacturers complete first training in mRNA technology in bid to improve regional vaccine production

24 Mar 2022



- Multilateral collaboration: WHO, PAHO, Medicines Patent Pool, and other partners
- Cooperation for technology transfer and for the development of mRNA vaccines:
 - Sinergium Biotech (Argentina) (Tech Transfer)
 - Bio-Manguinhos (Brazil) (Proprietary development)
- Commitment to provide PAHO/WHO Revolving Fund for equitable distribution in cases of emergency, WHO prequalification and, to share knowledge with other partners.

[Latin American manufacturers complete first training in mRNA technology in bid to improve regional vaccine production - PAHO/WHO | Pan American Health Organization](#)

PAHO Revolving Fund for access to vaccines

Solidarity • Equity • Transparency • Quality



Ensuring sustainable access to affordable and quality assured vaccines and immunization supplies for 43 years (1979-2022)

41 Vaccines products

29 Injection devices and cold chain equipment products from **38 suppliers**

USD 1.7 billion in goods procured in 2021

Guaranteeing access to vaccines

PAHO Strategic Fund

Guaranteeing access to medicines, diagnostics, and other commodities

Overview 2018-2022

**54 Participating
entities**

35 countries and territories
19 health agencies

Over **110 million**
people supported

US\$ 785 million
products procured

**Regional Platform to
Advance the Manufacturing
of COVID-19 Vaccines and
other Health Technologies
in the Americas**



The way forward:

Resilient health systems and services



Surveillance

Integrated &
Genomic surveillance
One Health

Health systems and services

based on primary
health care

Expanded Immunization Programs

- Emergency procedures updated based on lessons learned
- Flexible Public Health Measures
- Health Logistic networks to rapidly deploy staff and goods