

POLICY BRIEF SENTINET | ORAS-CONHU

BETWEEN ACCESS AND BENEFIT

Why research institutions and
sub-regional networks matter
to an operational and equitable
PABS system

Topic	Pathogen Access and Benefit-Sharing (PABS).
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Primary audience	Officials and technical advisers negotiating the PABS Annex and preparing for its implementation.
Additional audiences	WHO and PAHO technical teams; regional and sub-regional health bodies; national public-health institutes; research institutions and networks; funders; repositories; and product-development partners.

FINANCIA



01. Central message

An operational and equitable PABS system will depend not only on rules for the rapid and timely sharing of pathogen materials and sequence information, but also on the institutions and regional networks that detect pathogens, generate and interpret data, sustain scientific capability, and connect surveillance with public-health action. Their operational roles should be considered during negotiations and in guidance developed after adoption, without delaying urgent sharing or altering Member State authority.

- **Essential functions are already in place.** Research institutions, public-health institutes, and laboratories perform critical work from detection and stewardship to analysis, innovation, and public-health use.
- **Networks can mobilize capacity, but sustainability is not automatic.** Experience from Chile, ORAS-CONHU, and the 2026 Andes virus response shows what cooperation can activate, while also revealing uneven capabilities and the need for sustainable support.
- **A staged approach can connect operational knowledge with implementation.** Structured opportunities during negotiation, followed by functional mapping and pilots after adoption, could support learning while preserving rapid sharing and Member State governance.

02. Why this matters now

The World Health Assembly adopted the WHO Pandemic Agreement in May 2025 after COVID-19 exposed major weaknesses in global preparedness and inequities in access to vaccines, diagnostics, and therapeutics. The Agreement covers surveillance, research and development, local production, technology transfer, supply chains, financing, and other elements of pandemic prevention, preparedness, and response. PABS is one of its central pillars, but the system is not yet complete (WHO, 2025a [1]; WHO, 2026a [3]).

WHY PABS?

Faster access to pathogen materials and sequence information can accelerate risk assessment and product development, but speed alone does not ensure timely and equitable access to the resulting benefits.

WHAT IS ALREADY AGREED?

Article 12 establishes the PABS objective and envisages participating manufacturers targeting 20% of real-time production of relevant vaccines, therapeutics, and diagnostics for WHO during a pandemic emergency.

WHAT DOES IT AIM TO DO?

Create a multilateral WHO system for rapid and timely sharing of pathogens with pandemic potential and, on an equal footing, rapid, timely, fair, and equitable sharing of benefits arising from their use.

WHAT REMAINS OPEN?

Divergence remains on how samples and sequence information will be shared through laboratory networks and databases, on benefit-sharing provisions for participating manufacturers, and on how PABS links to other access and benefit-sharing frameworks. The full Agreement will open for signature only after the Annex is adopted.

PABS in brief. Source: WHO Pandemic Agreement and WHO negotiating updates (WHO, 2025a [1]; WHO, 2026a [3]; WHO, 2026b [4]).

How samples and sequence information will move through laboratory networks is one of the questions still open, and that is where the issue raised here belongs. Research institutions and laboratories have already taken part in stakeholder consultations alongside the text-based negotiations. What remains unsettled is how their operational roles, support, and participation will be structured once the system operates (WHO, 2026b [4]).

In May 2026, the World Health Assembly decided that the Intergovernmental Working Group would continue its work and submit the outcome to the 80th World Health Assembly in May 2027 or, if necessary, to an earlier special session (WHA79, 2026 [6]). IGWG 8 met on 14–18 September 2026, and the Annex remains under negotiation. This brief is offered while negotiations remain active, does not assume the final content or timetable, and leaves all decisions with Member States.

03. Capacity exists, but sustained capability is not automatic

1. Research institutions can become national surge infrastructure. Chile converted 33 university laboratories into a diagnostic network that carried around 15% of national COVID-19 testing (Chile Ministry of Science, 2021 [8]). Preparedness planning can identify and connect such capacity before an emergency rather than during one.

2. Sub-regional bodies already coordinate cross-border science. ORAS-CONHU has coordinated SARS-CoV-2 genomic surveillance across four Andean countries and works with WHO on arbovirus capacity in six, while also linking Member States, national public health institutions, and sub-regional technical cooperation. PABS implementation could build on these existing platforms, connecting implementation with national decision-making while respecting country mandates (Bruno et al., 2025 [9]; WHO, 2023 [10]; ORAS-CONHU [11]).

3. But that capacity is unevenly spread, and participation in pathogen sharing does not always translate into sustained scientific capability or downstream research participation.

Sequencing coverage across 24 Latin American and Caribbean countries has averaged 0.7% of reported SARS-CoV-2 cases, and contributing institutions are not always included in subsequent research (Concha-Toloza et al., 2025 [12]; WHO, 2025b [2]). PABS implementation and reporting could help make these gaps visible and easier to monitor over time.

CONTEXT AND EVIDENCE

04. The institutional pathway from detection to product access

PABS is usually described as a two-way exchange. Countries provide pathogen materials and sequence information, and manufacturers use them to develop vaccines, diagnostics, or therapeutics. That exchange is essential, but it leaves out everything that happens in between.

Between detection and product access sits a chain of laboratory, data, research, ethics, and governance work. Public-health institutions, laboratories, universities, and research centres carry out much of it, often in partnership. They collect and characterize samples, generate sequence information, maintain collections, develop analytical methods, validate diagnostics, support clinical research, and advise public-health authorities, acting as providers, users, intermediaries, or partners at different moments. Contracts can define responsibilities, but cannot alone ensure institutional readiness, sustainable financing, long-term scientific capacity, or participation in the research and innovation that follow.

So the question is not whether research institutions need a benefit-sharing system of their own. It is how PABS will work with the institutions through which pathogen sharing already runs, and how implementation can build on and sustain these capacities while keeping contributions and obligations transparent.

05. Examples of cooperation models PABS could build on

A national university network became public health infrastructure in weeks

In April 2020, Chile's health and science ministries, scientific societies, and universities converted existing molecular-biology laboratories into a national diagnostic network. It reached 33 laboratories from Arica to Magallanes and processed 960,000 PCR tests by December, around 15% of the national total. In Magallanes, where samples had previously flown to Santiago and taken up to 12 days, a university and hospital partnership brought diagnosis under 24 hours (Chile Ministry of Science, 2020 [7]; 2021 [8]; Vásquez-Vidal et al., 2026 [13]). The network mobilized existing infrastructure through agreed roles, quality standards, financing, and direct links to public-health authorities. Similar conditions would matter under PABS if national systems are to mobilize research networks with defined functions. This was an emergency diagnostic network, not a PABS mechanism, so its value is as an implementation lesson.

A sub-regional body connected genomic surveillance across four countries

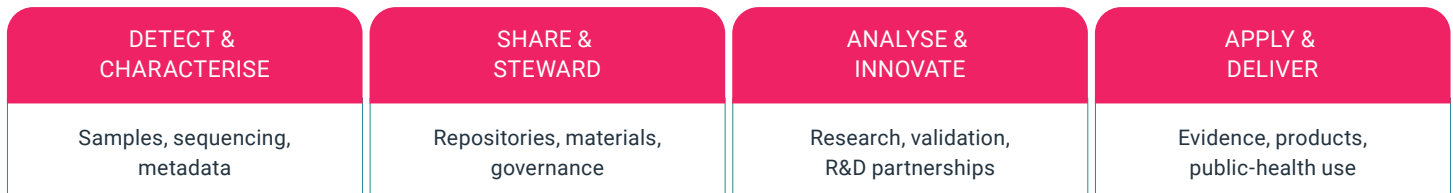
An ORAS-CONHU-coordinated program brought together the national public-health institutes of Bolivia, Colombia, Ecuador and Peru, linking national laboratory and bioinformatics capacities through training, routine exchange of expertise and data, and joint research. A 2025 peer-reviewed study it part-funded analyzed 16,867 SARS-CoV-2 sequences, identified a common pattern of rapid transnational spread, and found sequencing rates ranging from 1.25% in Peru to 0.06% in Bolivia. A similar regional approach has been used to strengthen tuberculosis laboratory networks. Through two consecutive Global Fund grants, ORAS-CONHU, together with PAHO/WHO and SE-COMISCA, supported laboratory capacity, quality systems, information systems, and the sustainability of national and supranational reference laboratories across 20 countries in the first phase (2017–2019) and 17 countries in the second phase (2020–2023). WHO separately reports working with ORAS-CONHU since 2020 to strengthen arbovirus capacities in six Andean countries, including Chile (Bruno et al., 2025 [9]; ORAS-CONHU, 2025 [11]; ORAS-CONHU, 2023 [18]; WHO, 2023 [10]). The program illustrates how a standing sub-regional health body can convene national institutes, support

shared research and training, and publish comparable cross-border data. The experience also highlights the value of adaptability, interoperability, minimum common standards, and sustained coordination rather than technological uniformity. Such bodies could provide channels for PABS implementation and non-monetary benefit sharing. The study is retrospective and does not evaluate PABS or benefit-sharing.

South American and African laboratories anchored the 2026 Andes-virus response

The Andes virus outbreak linked to the MV Hondius began aboard the ship and quickly required a coordinated response. Argentina and Chile investigated the source, laboratories in South Africa and Switzerland confirmed and sequenced the virus, and the WHO facilitated primers, probes, and laboratory collaboration with institutions in Senegal, the United Kingdom, the Netherlands, and Argentina. The response traced more than 650 contacts across 33 countries and territories, and WHO opened a 21-country study on diagnostics, therapeutics and vaccines. ORAS-CONHU convened more than 80 public-health, surveillance, zoonosis and laboratory specialists from the six Andean countries, as well as Argentina, in July, with Chile's Institute of Public Health contributing on molecular diagnosis and sequencing. A Lancet correspondence from scientists in Chile, Uruguay, Argentina and the United States called the event a model of regional and global cooperation (WHO, 2026d [14]; WHO, 2026e [15]; ORAS-CONHU, 2026 [16]; Palacios et al., 2026 [17]). Much of the documented cooperation concerned assays, protocols, analytical expertise, and study design, not physical material alone. The response highlights forms of scientific and technical collaboration that extend beyond the exchange of physical materials and sequence information. How such contributions are documented or supported under PABS, and whether a given pathogen or activity falls within it, will depend on the final Annex.

Taken together, these examples do not demonstrate the effectiveness of a particular PABS implementation model. They show that pathogen sharing and scientific response depend on institutional capacities and cooperation arrangements that should be considered when designing and operationalizing the system.



OPERATIONAL ACTORS THROUGHOUT THE PATHWAY

National public-health institutes - Universities - Research centres - repositories - regional networks

PABS benefits are shared with participating countries and put into practice by operational actors.

- Technology access and transfer
- Laboratory capacity
- Training and technical cooperation
- Equitable participation in R&D
- Access to resulting products



Stronger national and regional preparedness and more effective public-health action

Figure 1. Points along the pathogen-sharing pathway where research institutions create value and where are [PABS benefits shared with participating countries are put into practice by operational actors. Source: SENTINET synthesis based on WHO (2022 [5]; 2025b [2]).

06. How research institutions operationalize the PABS pathway

This brief synthesizes official WHO, PAHO, ORAS-CONHU and Chilean government documents, international guidance and peer-reviewed studies. The examples show that research institutions contribute to surveillance, diagnosis, data use and cross-border response, but they do not compare alternative PABS implementation models or establish that one would produce more equitable outcomes. Much of the evidence comes from COVID-19 and selected regional experiences. ORAS-CONHU co-authored this brief, and its program documentation is considered alongside independent peer-reviewed and WHO sources, but is not an independent impact evaluation. With the Annex still under negotiation, terminology and institutional arrangements may change, so what follows is an invitation to dialogue and phased learning rather than a fixed blueprint.

OPTIONS AND IMPLEMENTATION

07. Three ways PABS could draw on operational expertise

PABS could draw on operational expertise at three levels of depth. Each builds on the one before it, and each carries a different requirement.

	Option 1. Baseline compliance	Option 2. Structured technical consultation	Option 3. Staged implementation support
What it would do	Apply PABS access, reporting and benefit-sharing rules to research institutions when they provide or use covered material.	Apply those rules, and consult research institutions on laboratories, databases, metadata and system review.	Apply those rules, draw on implementation experience during negotiation, then test guidance with willing institutions and networks after adoption.
Who leads	Member States and WHO under the final PABS legal architecture.	Member States and WHO, with balanced participation across regions and income settings.	Member States, supported by WHO, working through existing public-health, academic and sub-regional networks.
Main advantage	A common legal baseline, with no new institutional machinery.	Operational knowledge, without changing how PABS is governed.	Obligations connected to operational realities, with implementation experience informing future guidance.
Requirement	Rules proportionate enough not to disrupt open scientific infrastructure.	Transparent selection, and funding so lower-resource institutions can take part.	No parallel bureaucracy. Interoperable standards, existing networks, phased pilots.

Table 1. Comparison of the three approaches. Source: SENTINET and ORAS-CONHU.

08. A staged implementation approach for consideration

SENTINET invites PABS negotiators, WHO, and regional partners to consider a staged implementation approach: structured opportunities to share technical experience during negotiation, functional mapping after adoption, and guidance piloted through willing national and regional networks. The approach should connect rapid sharing with sustainable implementation capacity, equitable participation in research and development, and transparent benefit-sharing, while preserving Member State authority and WHO's coordinating role.

What this rests on

- Evidence:** Together, the cases show why a staged approach could add value: Chile mobilized national capacity; ORAS-CONHU coordinated across countries; and the Andes virus response depended on expertise and protocols as well as samples. The approach would carry these functions beyond one-off consultation.
 - Expected value:** Clearer visibility of implementation needs and benefit-sharing outcomes, including non-monetary benefits that strengthen institutional capacity, technology access, research participation, and sustained ability to generate and use pathogen data that leave lasting capability rather than one-off activity. These outcomes do not follow automatically from sharing, as the opening findings show.
- This proposal reflects the evidence assembled here rather than a formal comparison of implementation models, and Member States will weigh it against considerations beyond the scope of this brief.

How this could proceed, in three stages

1- While the Annex is negotiated. Encourage structured opportunities for research institutions and sub-regional bodies, drawn from a range of regions and income settings, to share implementation experience relevant to laboratory networks, sequence information, access procedures, and non-monetary benefits.

2- Once the Annex is adopted. TMap the public-health, academic, repository, and research-network functions implementation will need, and identify the gaps by region and income setting. **Such mapping could include a baseline assessment of differences in sampling, sequencing, bioinformatics, quality assurance, data governance, workforce, and geographic representativeness. Making these asymmetries visible would help distinguish participation in pathogen sharing from the sustained capability needed to generate, interpret, and use pathogen data across countries.**

3- As implementation begins. Pilot proportionate guidance through willing networks, publish what is learned, and adjust before wider roll-out, following the Annex's own milestones.

9. What implementation could require

Who is involved. Member States retain authority over the Annex, with WHO and regional bodies providing technical support and convening. The counterparts are national public-health institutes and laboratories, universities and research networks, repositories and database operators, research funders and product-development partners.

What it needs. An institutional map with clear roles, interoperable metadata and reporting standards, proportionate legal and ethics support, and financing for participation. Participation by institutions from low- and middle-income countries may require transparent selection and adequate resourcing, rather than mediation only through better-resourced global partners.

How it would work in practice. Guidance tested in diverse settings, with documented changes made in response to what implementation shows. Work could follow the Annex's own sequence rather than deadlines fixed before Member States have agreed on the system's institutions and governance.

10. Three concerns this approach would need to address

- **Could this slow urgent sharing?** That is the first test any added process should meet. A minimum interoperable dataset, procedures agreed in advance and emergency-ready arrangements are safeguards worth considering, and nothing proposed here need duplicate existing requirements.
- **Could better-resourced institutions come to dominate?** Experience elsewhere suggests this deserves attention from the outset. Balance across regions and income settings, funded participation, and published criteria for selection and allocation could each reduce that risk.
- **Could non-monetary benefits amount to little in practice?** Without agreed measures, that would be hard to establish either way. Tracking sustained capability, technology access, participation in downstream research, technical cooperation, and product access would help distinguish durable benefit from a single training activity.

11. How progress could be monitored

Are operational roles clear? Assess whether national and regional implementation plans define public-health, laboratory, academic, repository, and network functions without changing institutional mandates. Draw on PABS implementation reporting and national or regional reviews.

Are benefits supporting implementation? Assess whether non-monetary benefits respond to identified national and regional needs, including laboratory capacity, technology transfer, training, research participation, and product access.

Does capability last? Assess whether sequencing, bioinformatics, quality assurance, or research participation remain stronger after support ends, and where gaps persist. Draw on periodic implementation review.

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About SENTINET

SENTINET is a publicly funded Chilean research center of excellence connecting infectious disease surveillance, genomics, epidemiology, data, clinical research, policy, and community engagement. This brief translates external evidence into policy options from a Latin American perspective. SENTINET can contribute evidence synthesis, regional dialogue, and implementation research; decisions on the PABS Annex and its implementation remain with WHO Member States and the institutions mandated under the final agreement.

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About ORAS-CONHU

The Organismo Andino de Salud - Convenio Hipólito Unanue (ORAS-CONHU) is the intergovernmental health organization of the Andean countries (Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela), established in 1971. It supports its Member Countries through sub-regional technical cooperation, coordination and joint action on shared health priorities.

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