

The *Lancet* Countdown on Health and Climate Change

Policy Priorities for Latin America

2024



Context

The 2023 Latin American *Lancet* Countdown report showed that with increasing temperatures and an environment more prone to wildfires and mosquitoes, health risks are rapidly growing.¹ Yet, integrating health into climate policies has only recently gained traction.

At COP28 in Dubai, the first-ever “Health Day” and the UAE Framework for Global Climate Resilience,² which integrates health as an essential themeⁱ, marked historic milestones. Additionally, the UAE-Belém two-year work programme was launched, aiming to develop indicators and methodologies for measuring progress towards key thematic and dimension targets.² Looking ahead, COP29 host Azerbaijan has proposed the formation of a health-focused coalition between past and future COP Presidencies, aiming to ensure that climate and health commitments are consistently implemented and followed through over time.³

These developments present a significant opportunity to prioritise health and wellbeing in climate negotiations, policies, and actions, positioning COP29 and COP30 as pivotal moments for advancing health-focused initiatives. To leverage this momentum and promote health-centred climate action in Latin America, **this document outlines three key priorities to advance health protection and promotion in the context of a changing climate: centring human and ecosystem health in negotiations; integrating climate risk in health observatories; and including health and climate indicators as part of surveillance systems.** This brief emphasises the inextricable links between biodiversity and human health and underscores the importance of robust monitoring mechanisms to support both adaptation and mitigation efforts at regional and local levels.

Health and Climate Policy Priorities in Latin America

1

Human and ecosystem health should be central to international and national agreements.

2

Regional and national observatories for health and climate change should holistically integrate all elements of climate risk to support the adaptation process.

3

Indicators on health and climate change should be an essential part of local public health surveillance systems.

ⁱ Seven thematic targets include global priorities for adaptation in the sectors of water, food and agriculture, health, ecosystems and biodiversity, poverty and livelihoods, infrastructure, and cultural heritage. The health theme refers to “attaining resilience against climate change related health impacts, promoting climate-resilient health services and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities” (paragraph 9 of 2/CMA.5 2023).

Human and ecosystem health should be central to international and national agreements

Healthy ecosystems—forests, wetlands, oceans—are crucial for regulating the climate, purifying air and water, and providing vital contributions that sustain human life and cultural traditions.^{4–6} In Latin America, home to the Amazon rainforest and biodiversity-rich areas, human-led ecosystem degradation is not only worsening climate change through the loss of carbon sinks and feedback loops, but also threatening the health and livelihoods of millions of inhabitants.

Since the 1970s, the Amazon has lost 17% of its forest cover, mostly due to the demand for raw materials and agricultural expansion.⁷ Deforestation, coupled with forest degradation and the loss of climate regulation services has been linked to an increased risk of mosquito-borne diseases, wildfires, biodiversity loss, and climate-related disasters.^{1,8–10} The risks are being translated into the alarming rise of dengue cases in 2023/24,^{11,12} devastating floods in Rio Grande do Sul that claimed over 170 lives in 2024,¹³ and massive record-breaking wildfires that have severely affected Ecuador, Paraguay, Peru, Brazil, and Bolivia in 2024. With more than 300,000 fire hotspots, these fires have released massive carbon emissions and drastically worsened air quality.^{14,15} Such events not only harm natural ecosystems but also strain health systems across Latin America.

Building on the UAE Framework's focus on biodiversity and health, COP29 and COP30 provide critical opportunities to emphasise that ecosystems and their biodiversity can support economic growth, sustainable development, and human wellbeing. Mainstreaming a holistic health perspective with nature-based solutions, such as ecosystem-based approaches to climate change adaptation and disaster risk reduction, into national adaptation and mitigation strategies can strengthen the capacity of Latin American countries to respond to climate-related health risks while protecting biodiversity (Box 1). This approach allows us to articulate the climate and biodiversity agenda (Kunming-Montreal Global Biodiversity Framework), a strong demand stated during the COP28 Joint Statement on Climate, Nature and People.

Box 1: Country example: Colombia NDCs for health and ecosystems

Colombia has recognised the critical connection between ecosystem and human health by making the *“protection of water, ecosystems, and biodiversity”* a cross-cutting and integrative element in its latest National Determined Contribution (NDC), which also includes specific objectives related to human health. The NDC recognises the importance of the intrinsic value and services all ecosystems provide for the country and the world.¹⁶ Colombia shows that Latin American countries can lead by strategically embedding human and ecosystems' health into their existing climate commitments, such as in the latest round of NDCs.

Regional and national observatories for health and climate change should holistically integrate all elements of climate risk to support the adaptation process

Regional and national observatories focused on health and climate change are becoming essential, especially to fulfil the UAE Framework for Global Climate Resilience's target *"by 2030, all Parties have conducted climate impact, vulnerability, and risk assessments..."*. These observatories offer a potential holistic approach to understanding and addressing climate risks, thus playing a critical role in the adaptation process by assessing impacts, vulnerabilities, and risks, planning for adaptation, implementing measures, and monitoring progress.

Based on Fiocruz's experience (Box 2), for observatories to be effective, they must gather, integrate, analyse, and disseminate data across sectors, making cross-sectoral collaboration essential. Partnerships between health, environmental, and meteorological agencies, as well as academic institutions and civil society, promote better access to data, foster research-action networks, and provide support to policymakers in developing public health strategies. If observatories become a space for collaboration and integration, they can play a crucial role in continuously supporting national adaptation and mitigation plans and fostering more resilient and sustainable actions.

Additionally, observatories should go beyond tracking health impacts. Instead, they should take a comprehensive approach that includes indicators on health systems' adaptation and mitigation capacity as a whole, including indicators on related progress and implementation of policies and activities. For example, indicators on climate-resilient infrastructure, available climate-health services, professional training on climate change and health, and emergency response capabilities need to be included as central parts of observatories. Such a broad perspective informs strategies to start or continue to build low-carbon and climate-resilient health systems.

Finally, observatories might offer a broader perspective of health beyond clinical healthcare services, linking health to other health-determining sectors such as energy, agriculture, transport, and others. Although this approach needs strong cross-sectoral collaboration, it helps address complex, interconnected, and even co-concurring issues such as population exposure to heatwaves and poor air quality, limited access to safe drinking water and flooding, and health co-benefits of mitigation.

Taking the advantage of Latin America's opportunities on this, countries in the region can leverage its existing networks and regional cooperation to create and establish observatories that enhance resilience, protect health, and strengthen responses to climate change at both local and national levels.

Box 2. Country example: Brazil The Health and Climate Observatory

Acknowledging the complexity of the issue, the Climate and Health Observatory at Fiocruz in Brazil (www.climaesaude.icict.fiocruz.br) was established from a wide collaboration, including the Institute of Scientific and Technological Communication and Information in Health (ICICT in Portuguese), the National School of Public Health Sérgio Arouca (ENSP in Portuguese), and the National Institute for Space Research (INPE in Portuguese) in partnership with the Secretary of Health Surveillance.

The observatory gathers environmental, climate, socioeconomic, epidemiological, and public health data in order to keep track of long-term trends in environmental and climate changes and the effects on population health. This information helps guide the implementation and planning of public policies.

Indicators on health and climate change should be an essential part of local public health surveillance systems

Indicators are essential for establishing observatories on health and climate change, as well as for strengthening public health surveillance (PHS) systems. They provide critical data on hazard exposure, health trends, disease outbreaks, and the overall health status of populations, serving as a foundation for informed decision-making and planning.

Some PHS systems in Latin America already collect and analyse indicators that could be adapted for tracking progress in the relationship between health and climate change (Box 3). However, comprehensive frameworks and suitability analyses are necessary to determine which existing indicators are relevant for the country or specific setting and which new ones need to be developed.¹⁷ These analyses can be done following a series of steps, which are broadly explained in the paragraphs below.

The first step is to define a framework for selecting appropriate indicators. For example, the *Lancet* Countdown's and the DPSEEA (Driving force-Pressure-State-Exposure-Effect-Action) frameworks provide valuable guidance for identifying indicators for tracking health and climate change, identifying, for example, population's exposure to particular hazards (e.g., extreme heat or air pollution) and effect of climate-related hazards (e.g, heat-related mortality).^{18,19}

Once the framework is defined, existing indicators in local PHS systems should be identified. As many Latin American countries already monitor notifiable diseases, these can be used for climate-related health surveillance. For instance, indicators for climate-sensitive diseases like vector-borne illnesses (e.g., malaria, dengue) and waterborne diseases (e.g., salmonellosis, cholera) are well-established and could be repurposed for tracking climate impacts.

However, gaps in current surveillance systems may necessitate the development of new indicators. Global examples of climate-health indicators could be adapted to local contexts through a suitability analysis, which would assess factors such as scientific foundations, measurability, relevance to public health, and association with climate change.¹⁷

Box 3. Country example: Chile Indicators for public health surveillance

Taking Chile as an example, it is possible to see that several climate-sensitive indicators related to infectious and vector-borne diseases are already part of the public health surveillance system, presenting the opportunity to consider them as indicators for tracking the impacts of climate change on population health. Additionally, temperature-related indicators, though not yet part of the formal surveillance system, could be incorporated into a comprehensive health and climate change monitoring framework.¹⁷

Accelerating action for a healthier, sustainable, and climate resilient Latin America

Addressing the health risks of climate change in Latin American requires prioritising the strong link between human health and ecosystems' health and developing regional observatories that integrate climate-health indicators into public health surveillance systems. By embedding health into all policies and enhancing monitoring systems, the region can better protect

vulnerable populations and ecosystems on which human health depends safeguarding biodiversity and unvaluable cultural traditions. Immediate and coordinated multisectoral action is essential to building resilience and ensuring sustainable health outcomes for current and future generations.

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Organisations

THE OSWALDO CRUZ FOUNDATION (FIOCRUZ)

Institute of science and technology within the Brazilian Ministry of Health of Brazil. Its main purpose is to produce, disseminate and share knowledge and technologies aimed at strengthening and consolidating the Unified Health System (SUS), contributing to the improvement of the health and life quality of the Brazilian population.

FEDERAL UNIVERSITY OF RIO GRANDE DO SUL (UFRGS)

Public institution committed to the future and critical awareness, respects differences, prioritizes experimentation, education and the production of knowledge inspired by ideals of freedom and solidarity.

UNIVERSIDADE FEDERAL DE GOIÁS (UFG)

Teaching, research and extension public institution, trains professionals and citizens committed to the transformation and development of society.

THE LANCET COUNTDOWN

The *Lancet Countdown: Tracking Progress on Health and Climate Change* is a multi-disciplinary collaboration monitoring the links between health and climate change. In 2024, we published the 8th *Lancet Countdown* annual indicator report, funded by Wellcome and developed in close collaboration with the World Health Organization. The report represents the work of 122 leading experts from 57 academic institutions and UN agencies globally. Published ahead of the 29th UN Conference of the Parties (COP), the report provides the most up-to-date assessment of the links between health and climate change. For its 2024 assessment, visit <https://www.lancetcountdown.org/>.

THE LANCET COUNTDOWN LATIN AMERICA

The *Lancet Countdown Latin America* exists to promote research on health and climate change in the region, to encourage regional engagement on how climate change is affecting health across the continent, and challenge countries to respond in line with the evidence. It is the only academic centre in South America specifically researching climate change and health and is based at the Clima centre at Universidad Peruana Cayetano Heredia (UPCH) in Lima, Peru.

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