Building Climate Resilient Health Systems: Current Initiatives, Resources, and Networks

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Climate change and health in the Americas
Impacts and Inequity
Strengthen health system resilience to climate change


- Resilient, sustainable health facilities
- Health access to climate finance
- Health workers trained, engaged on climate
- Climate informed surveillance systems
Health and Climate Change Agenda

Climate resilient health systems

Governance and institutional structures
- Climate and Health committees
- Health in inter-ministerial climate change committees
- Norms and legislation

Planning
- Health in Nationally Determined Contributions, NDC
- Health Vulnerability & Adaptation Assessment, V&A
- Health National Adaptation Plan, NAP/H-NAP
- National and Regional Strategies & Plans

Health Infrastructure and services
- Carbon emission assessment and mitigation
- Environmentally friendly practices
- Sustainable procurement
- Climate resilient adaptation measures

Research and Capacity-building
- Support and promote research
- Guidelines and training materials
- Health professionals training
- Intersectoral collaboration

Health & Climate financing
- Project pipeline development
- Project implementation

Health co-benefits
- Tools for measuring health co-benefits: green spaces, active transportation, air quality

Health & climate surveillance systems
- Climate sensitive disease research and surveillance
- Integrated databases
- Observatory on climate and health
- Early Warning Systems
Empowering the Health Sector:
• Engagement in national climate change committees.

Convening Structures on Health and Climate Change:
• Technical teams for detailed assessments and action plans.
• High-level meetings for policy alignment and resource allocation.

Cross-sector Collaboration:
• Collaborate with environment, energy, water, urban planning, transportation, and other related sectors.
• Share insights, data, and strategies for holistic resilience-building.

Leading National Discussions:
• Make health and climate action a recurrent topic in national discourse.
• Advocate for health-focused climate resilience in media, educational institutions, and public forums.
Health and climate change strategic planning

Mandates and action plans

- Plan Andino de salud y cambio climático 2020-2025 (OPS y ORAS/CONHU 2020)
- Declaración de Ministros de Salud del MERCOSUR y Estados Asociados en relación a la Salud y el Cambio Climático (2018): Strategy signed 2023

Guidelines

- Enhancing Health and climate change commitments in updated Nationally Determined Contributions - NDCs (PAHO/2021)
- Quality Criteria for Health National Adaptation Plans
Guidelines and Frameworks

- **Guidance for Health Vulnerability and Adaptation Assessments**
- **Quality Criteria for Assessing Health National Adaptation Plans**
- **Guidance for including Health in Nationally Determined Contributions**
- **WHO Operational Framework for Climate Resilient Health Systems**
Health-relevant climate risks (historical and scenarios)
- Average annual temperature and number of days with extreme heat.
- Precipitation and Number of days with extreme rains
- Number of days with drought

Impacts of climate change on health (historical and scenarios)
- Extreme weather events
- Vector-borne diseases
- Heat-related mortality
- Non-communicable diseases
- Food and nutritional security

Vulnerability and sectoral adaptive capacity

Status of national policies and actions

Surveys and PAHO/WHO-UNFCCC Country Profiles

http://www.who.int/globalchange/resources/countries/en
Health and climate change: country profile 2020: Trinidad and Tobago (who.int)
Climate Resilient Health Infrastructure

- The Health Sector contributes ~4-10% of national GHG emissions. If it were a country, the health sector would be the 5th largest GHG emitter (4.4% of global emissions).
- 71% of GHG emissions are due to the production chain (production, transportation and waste treatment/disposal; HCWH 2019).
- 77% of health facilities in LA&C are located in areas at risk of climate disasters.
Guidelines and Frameworks

- WHO Guidance for Climate Resilient and Environmentally Sustainable Health Care Facilities
- PAHO SMART Hospitals Toolkit
- WHO Guidance to Assess Vulnerabilities in Health Care Facilities in the Context of Climate Change
- Health Care’s Climate Footprint – Health Care Without Harm
Health & climate surveillance systems

Integrated Surveillance Observatories & Early Warning Systems for Climate-Sensitive Diseases are essential

• **Data Collection:**
  - Continuous monitoring of climate-sensitive diseases.
  - Capture of environmental variables affecting disease spread.

• **Data Analysis:**
  - Identify trends, patterns, and anomalies.
  - Forecast potential outbreaks based on climate indicators.

• **Alerts & Communication:**
  - Rapid dissemination of information to health professionals and the public.
  - Guidance on protective measures and responses.

• **Collaboration:**
  - Multisectoral approach involving health, meteorology, and environmental sectors.
  - Cross-border cooperation to track diseases that don't respect national boundaries.
Health and Climate Change Observatories

Data
- EIS: Environmental Information System
  - Images
  - Forest fires
  - Land use
  - Land coverage
- HIS: Health Information System
  - Disease notification
  - Hospitalization
  - Mortality
  - Time series
- CIS: Climate Information System
  - Raw data (precipitation, temperature)
  - Prevision
- SIS: Sociodemographic Information System
  - Population
  - Migration
  - Vulnerability

Analysis
- Theory Experience

Risk models
- Integrated databases

Communication
- Policymakers Warning systems
- Specialists Data Tools
- Citizen Permanent information

Risk maps & Early Warning Systems

Barcellos et al 2017
Los factores climáticos son importantes predictores del riesgo de dengue

Aedes breeding, survival, host-virus interactions

Transmisión de dengue

Temperatura
Humedad
Precipitación
Sequía

Almacenamiento de agua

Nonlinear and delayed impacts of temperature and precipitation on dengue risk in Barbados (Lowe et al. 2018)

Urbano
Rural

Dengue risk at different time lags under extreme wet and drought in Brazil (Lowe et al. 2021)
Guidelines and Frameworks

- Early warning alert and response (EWAR) in emergencies: an operational guide
- WHO Quality Criteria for the Evaluation of Climate-Informed Early Warning Systems for Infectious Diseases
- WMO Multi-hazard Early Warning Systems: A Checklist
  Outcome of the first Multi-hazard Early Warning Conference
Health Co-benefits of Climate Action

• **Immediate Gains**: Climate action can directly improve health via cleaner air and more physical activity.

• **Cost Benefits**: Health co-benefits enhance climate intervention ROI by reducing health costs.

• **Better Decision-making**: Assessing co-benefits ensures strategies address environmental and health goals.
Tools to measure health impacts to prioritize health-promoting policies and interventions
Rapid implementation to achieve NDC targets can maximize benefits:

- **25,600 deaths averted in the period 2021-2030 and 3,800 deaths averted per year from 2030 onwards.**

- **Avoidance of 2,750 cases of hospitalization per year from respiratory and cardiovascular causes from 2030 onwards.**

- **Reduction of 892,000 episodes of asthma per year in children from 2030 onwards.**

- **Economic benefits** up to USD 12.9 billion between 2021-2030, and USD 1.8 billion per year (equivalent to 0.64% of GDP) from 2030 onwards.

*Includes statistical value of life; changes in productivity loss and costs of illness.*
Tools and Guidelines

**WHO - CLIMAQ-H: Achieving Health Benefits from Carbon Reductions**

**WHO - AirQ+: software tool for health risk assessment of air pollution**

**WHO – Health Economic Assessment Tool for Walking and Cycling (HEAT)**
Capacity-building on health and climate change

• **Ministries of Health**: Enhance capacity to plan, prevent, and respond to climate risks.
• **Health Professionals**: Train to identify and treat climate-induced health risks.
• **Youth Engagement**: Nurture young voices in climate dialogues, fostering future leaders.
• **Public Awareness**: Amplify understanding of the intertwined impacts of climate change on health.
Opportunities for capacity building

PAN AMERICAN CLIMATE RESILIENT HEALTH SYSTEMS COURSE

Tuesdays & Thursdays
April 4 - May 2, 2023
10:00-11:30 AM EST
12:00-1:30 PM UYT

REGISTER

CLIMATE AND HEALTH RESPONDER COURSE FOR LATIN AMERICA

PRESENTED BY THE GLOBAL CONSORTIUM ON CLIMATE AND HEALTH EDUCATION, PAN AMERICAN HEALTH ORGANIZATION AND THE INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH

REGISTRATION AVAILABLE

PAHO
Opportunities for capacity building
Opportunities for capacity building

UWI Climate Change and Health Leaders Training Program

• Creation of an interdisciplinary cadre of 15 climate change fellows from across the Caribbean trained in Climate Change, One Health, and Leadership.
• So far 12 Climate Change and Health Leaders in the Caribbean have been trained
Financing of health and climate programs

• Less than .5% of global climate financing has been allocated for health projects.
• PAHO/WHO - Implementing Agency (Delivery Partner) for Green Climate Fund Readiness Projects
• Other strategic partners and funding sources include European Union, IDB, CDB, World Bank, USAID, Canada, etc
Current Projects:

**EU/CARIFORUM**
Strengthening Climate Resilient Health Systems in the Caribbean

**Beneficiaries:** 16 countries - 14 CARIFORUM countries, Cuba and Dominican Republic

**Timeline:** 2020-2025

**Budget:** €7M

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**Caribbean:**
Enhancing climate change resilience of health systems in seven CARICOM States

**Beneficiaries:** Guyana, Jamaica, Saint Lucia, Saint Kitts and Nevis, Haiti, Belize, and Trinidad and Tobago

**Timeline:** Sept 2022 - Apr 2024

**Budget:** US$1.05M

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**Argentina:**
Increasing health sector’s capacities and strengthening coordination on climate action in Argentina at national and subnational levels

**Timeline:** 18 months

**Budget:** US$300,000
Financing of health and climate programs

- Preparation of portfolios and local capacities for the generation of projects on health and climate change for the GCF and other cooperation agencies.
Alliance for Transformative Action on Climate and Health (ATACH)

https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health
Five thematic working groups:

• Financing the Health Commitments on Climate Resilient and Sustainable Low Carbon Health Systems.

• Climate Resilient Health Systems.

• Low Carbon Sustainable Health Systems.

• Supply Chains.

• Climate Action and Nutrition.

(ATACh; “the Alliance”)

https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health/how-to-apply
Upcoming Initiatives

- Climate Change and Health Survey underway
- UNFCCC COP28- Health Day (Dec 3, 2023)
- Latin America Climate Change Week (Oct 24-26, 2023)
- New WHA Resolution on Climate Change and Health
- New PAHO Resolution on Climate Change and Heath
- Global Research Agenda for Climate Change and Health (WHO)
Thank you!
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