

## Pacific Insight Brief 8 | Health

Climate change exacerbates many current climate-sensitive health outcomes and has the potential to affect the ability of health systems, institutions and organisations to maintain or improve health burdens in the context of changing climate and development patterns. If no additional actions are taken, substantial increases in morbidity and mortality are projected for a wide range of health outcomes over the coming decades.<sup>1</sup>

In many communities, health systems and staff are managing significant disease outbreaks while responding to the impacts of tropical cyclones, flooding and drought including increases in injuries and death; damage to health infrastructure and critical services; and reduction of water and food security. This places extreme pressure on already fragile health systems and under resourced health workforces – ultimately compromising the resilience of people and communities.

This brief provides lessons and insights and opportunities based on the Australia Pacific Climate Partnership's (Climate Partnership) experience in supporting climate and disaster integration across the health sector and supporting the implementation of the World Health Organisation's (WHO) 10 building blocks under the Operational framework for building climate resilient health systems of climate resilient health systems.

### Insights and lessons

#### **Evidence is clear the climate change is impacting health and health systems.**

Pacific island countries are facing a triple burden of disease – Non-Communicable Diseases (NCDs), communicable disease, and the health impacts of climate change. The escalating frequency and intensity of extreme weather events such as cyclones and storms, lead to injuries, fatalities, and mental health effects, disrupting access to crucial health services, particularly affecting vulnerable populations and damaging food crops. Extreme heat contributes to cardiovascular diseases, strains health facilities, and raises mortality rates, with equity concerns for outdoor labourers.

Air quality challenges, including cardiovascular risks and respiratory illnesses, disproportionately affect rural women. Water security issues, exacerbated by climate change, result in waterborne diseases due to flooding, impacting sanitation and water quality. Unpredictable weather and climate make growing food more difficult, resulting in reduced yields, climate-induced food shortages, and dietary transitions.

Malnutrition can result, which threaten foods security especially among vulnerable populations. Changing patterns of vector-borne diseases, such as malaria and dengue, pose increasing risks. Social factors, driven by climate-driven

migration and conflict, contribute to health risks through displacement, overcrowded conditions, and mental health challenges.

#### **The triple burden of disease weighs most heavily on women, children, rural and other marginalised communities and individuals.**

Support to address the multi-dimensional aspects of health for these segments of society is particularly important.

#### **Addressing climate risk requires identifying and tackling the root causes of health and health system issues.**

Prioritising and addressing climate in the context of apparent and immediate health and health sector concerns is a challenge. Many health systems across the region face pressing and immediate challenges and continue to reset after the COVID-19 response.

However, steps need to be taken to better anticipate and plan for future climate stressors as a priority, to avoid significant negative impacts on health system functioning and population health. There is a risk that any gains made in health system strengthening will be undermined or lost due to the impacts of climate change. Efforts to build awareness and take action to build climate resilient health systems can

<sup>1</sup> Hoegh-Guldberg O, Jacob D, Taylor M, et al. The human imperative of stabilizing global climate change at 1.5°C. Science. 2019;365:eaaw6974.

be transformational and guide efforts away from short-term planning to systematic solutions and feed into strengthening health systems.

**Health programming requires ongoing funding to strengthen actions towards climate resilient population health and health systems.**

It is essential to consider climate and disaster resilience in health program design, with funding and technical assistance allocation, to ensure guidance and direction for implementation of climate resilient health initiatives and integration across the sector.

**Early warning systems can support identification and early action to address health risks of rapid and slow onset climate change impacts, through collaboration between Meteorological Services and Health Ministries.**

There is interest across the region for early warning climate and health systems to support disaster readiness and resilience (e.g. MalaClim Early Warning System to produce climate and malaria outlooks in Solomon Islands). Furthermore, examples of early warning systems supporting the health sector prepare for and respond to disaster exist globally, which could be adapted to Pacific contexts. However, such initiatives require adequate resourcing and incentives for collaboration, development and maintenance, as well as targeted impact forecasting developed in consultation with end users. Strengthened data sharing between National Hydro Meteorological Services (NHMS) and sectoral agencies (e.g. through data sharing agreements) can lead to effective communication of warnings to support the development of sectoral products for anticipatory actions and resilience building in the health sector.

**Further evidence and assessments are needed to drive risk informed decision making in the health sector.**

An essential step in building health resilience to climate change is to carry out a health vulnerability, capacity and adaptation assessment to identify and assess the range of health challenges and opportunities that may arise due to climate change, and possible measures to leverage existing strengths and capacity. In the Pacific, there is also a dearth of evidence and baseline data to guide national government's planning and decision making in the health sector.

Information on climate change risks and impacts need to be translated from the scientific research domain into language and time scales relevant for policy makers. A lack of timely, accurate and reliable surveillance data can delay timely intervention for prevention.

The Climate Partnership has tried to address this knowledge gap to increase understanding of climate and health in the Pacific through development of a country climate and health factsheets, a study on impacts of climate change on mental

health and modelling of the impact of climate change on dengue.

**A coordinated public health approach that includes cross-sectoral collaboration and interdisciplinary expertise, is needed.**

Because of the complex and overarching nature of the health risks of climate change, it is best to consider a public health approach. This approach acknowledges that health has a range of determinants, and particularly targets the social and environmental determinants of health.

The Australian Government funded Indo Pacific Centre for Health Security supports the One Health approach whereby health, agriculture, water and veterinary experts coordinate together and share information recognising that the health of people, animals and the environment are interconnected. Vertical or isolated programs, for example those that target only one area of the health system, are likely to be less valuable and sustainable than those that address the health system as a whole.

**Building technical, organisational and institutional capacity, including national health and adaptation policy, is essential.**

Significant work is needed to build the skills and knowledge between climate change and health among policymakers, senior staff, the media and communities. Moreso, partnerships between health and other sectors are essential in achieving and coordinating policies that benefit health and climate. These are facilitated by policy settings that link climate and health (e.g. Samoa Climate and Disaster Resilience Health Plan), National Health Adaptation Plans (HNAP) and inclusion of the health sector in climate and disaster policy committees and planning. Furthermore, providing health impact assessments and by linking data on health trends, economic costs, and evidence of effective interventions across sectors.

## Case example | Women-led warnings for health

The Women's Weather Watch (WWW) network has been established in Fiji and Vanuatu, providing communities with real-time situational updates through SMS and local radio across the country with extreme weather and drought warnings from meteorological offices.

More recently, the network has been used to provide health-related messages to communities about COVID-19, handwashing, and social distancing. The WWW networks have also been used to improve disaster preparedness, planning of health programs, food security and women's leadership.

Importantly, the WWW network also provides a link from communities back up to national government. WWW network members provide information on disease outbreaks and health impacts of rapid onset disasters to the national hub, who then channel this information to the relevant government focal point. This information enables a rapid and targeted response and supports health surveillance across Fiji and Vanuatu's many islands. The program is delivered by ActionAid Vanuatu and FEMLINK and supported by the Australian Government.



## Opportunities

### **Emerging from COVID-19, planning and programming can strengthen health systems to be resilient to climate and other shocks and stresses.**

Health systems and stakeholders have been operating in an emergency context over the course of the COVID Pandemic and are only beginning to re-emerge from this period. There are timely opportunities to integrate climate into individual investments, and also across broader portfolio and Development Partnership Planning processes. Doing so can set out long term-goals, frameworks for action, and a commitment to build awareness, identify priorities and take action to build climate resilience.

### **Use and build on existing frameworks to guide climate resilient and low-carbon health systems that can be applied across the Aid program.**

For example, the WHO Operational Framework includes 10 components to help health organisations, authorities, and programmes to be better able to anticipate, prevent, prepare for, and manage climate-related health risks. This can be applied and tailored to integrate with Australian aid program designs in establishing climate resilient integration approaches. A first step is engagement, building climate engaged leadership and governance and supporting awareness across the workforce. Support for comprehensive Vulnerability, Capacity and Adaptation (VCA) assessments that can inform ministries of health to build health systems resilient to climate change and disasters is also a key early step.

### **Support health sector engagement with Early Warning Systems initiatives with National Meteorological Agencies.**

There is scope for ministries of health to strengthen health systems to predict, detect, prepare and respond to climate-sensitive disease outbreaks by, for example, building climate-informed surveillance and early-warning systems, increasing health workforce capacity, and improving climate resilience of healthcare infrastructure to maintain delivery of services at all times.

### **Integrate climate risks into sector support and technical assistance.**

The Climate Partnership has collaborated with the Specialised Health Services (SHS) to provide technical climate expertise into new health program designs. Over time, all technical support facilities should integrate a climate and disaster resilience into design and implementation. Furthermore, there may be scope for the aid program to promote research to identify sector policies and measures with best performance in improving health and addressing climate change. Also, national governments can provide a forum to facilitate information exchange, coordination and collaboration on strengthening climate resilient health systems including actions to adapt to the impacts of climate and low carbon development. In addition, climate and health should be considered across all sectors, aligning with the 'Health in all policies' approach.

**Green the health sector through reduction of greenhouse gas emission in health care facilities.**

There is opportunity for the health sector to harness climate mitigation finance to support health systems to transition to low-carbon, high-quality service delivery, such as through renewable energy, sustainable waste management and other innovative “green” initiatives<sup>2</sup>. This is critical as the health sector is not only affected by climate change. It also contributes to the magnitude of the crisis, being responsible

for around 5 percent of greenhouse gas (GHG) emissions globally.<sup>3</sup>

**Improve policy coherence and donor coordination as part of the health sector’s response to climate change in the Pacific.**

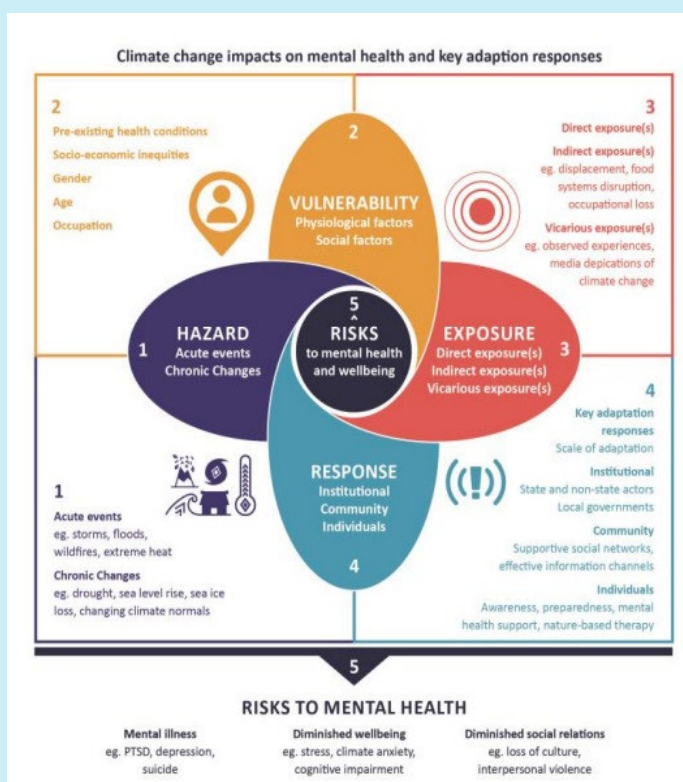
Development partners have an opportunity to achieve a more coordinated approach, including on health infrastructure, to ensure resilience outcomes are maximised.

**Case example | Exploring the impacts of climate change on mental health**

In 2023, the Climate Partnership collaborated with several Health Panel experts and the University of Queensland to research and develop a brief and infographic on the varied ways mental health in the Pacific is being affected by climate change.

Key messages from this research, included:

- Climate change is expected to have adverse impacts on well-being and to further threaten mental health as identified by the Intergovernmental Panel on Climate Change (IPCC) in 2022.
- Mental health impacts can arise from exposures to high temperatures, extreme weather events (e.g., tropical cyclones, drought, flood, heatwaves), displacement, malnutrition, conflict, and climate-related economic and social losses.
- Climate change-related anxiety, sometimes called ‘eco-anxiety’, is emerging with people expressing high levels of concern and perceived harm associated with climate change.
- People of the Pacific are likely to be at high risk for mental illness attributable to climate change. This is especially the case for atoll communities and those whose livelihoods are threatened by extreme weather and sea level rise (WHO 2015).
- Climate change is predicted to increase inequality in mental health, with women and marginalised groups at higher risk.



**Further reading:**

Please visit the resources section of [ClimateWise](https://www.healthpolicypartnership.com). to access a range of knowledge products including the Climate Partnership’s Integration Guidance Note for Health, the Climate Partnership’s brief on Health Risks of Climate Change in the Western Pacific, and Climate Change and Health Briefs for each country.

<sup>2</sup> See for example WHO guidance for climate resilient and environmentally sustainable health care facilities: <https://www.who.int/publications/i/item/9789240012226>

<sup>3</sup> <https://www.healthpolicypartnership.com/the-nexus-between-climate-change-and-healthcare/#:~:text=The%20healthcare%20sector's%20environmental%20impact,fifth%20largest%20polluter%20on%20Earth.>

