

SAMOA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2025

Health and climate change in Samoa

The Lancet Countdown on Health and Climate Change tracks the evolving relationship between climate and health through 50+ peer-reviewed indicators. Since 2016, it has provided peer-reviewed annual assessments, published in *The Lancet*. The 2025 report reveals the grave health toll of climate change inaction: fossil fuel dependence, rising emissions, and delayed adaptation are costing millions of lives. Recent climate policy rollbacks further threaten our ability to respond to the accelerating crisis, undermining progress towards a healthy future.

This document highlights key country-level findings from the 2025 Lancet Countdown report for Samoa, showing that:



In Samoa, populations are increasingly exposed to extreme heat, contributing to rising cases of heat-related illness and mortality, and undermining livelihoods and wellbeing.



Extreme heat imposes direct costs through productivity loss and infrastructure damage, and indirect costs by straining health systems and disrupting supply chains.



Communities in Samoa face growing health risks from sea-level rise, including direct impacts such as injury and waterborne disease, and indirect effects like displacement and loss of access to essential services.

With the threats of climate change growing, protecting people's health and survival demands simultaneous and unprecedented efforts to advance adaptation and mitigation, and requires an "all hands on deck" approach.

Heat and Health

Exposure to high temperatures threatens lives and health, increasing the risk of heat-related illness and mortality. Vulnerable groups, including older adults, young children, pregnant women, and those with pre-existing conditions, face the greatest risks. In Samoa, heatwave exposure has risen, placing growing pressure on health systems. This trend is particularly concerning for small island nations, where limited healthcare infrastructure and high outdoor labour dependence heighten vulnerability. Without urgent adaptation measures, rising heat will continue to strain public health services and deepen existing health inequities.

ECONOMIC IMPACT OF HEAT

Heat exposure limits labour productivity, reducing earnings and economic stability while exacerbating health risks. Prolonged exposure to high temperatures can lead to dehydration, heat stress, and chronic conditions. These impacts ripple through the social determinants of health, such as income, housing, and food security, intensifying inequalities and undermining resilience in vulnerable communities.

73.9

In 2024, people in Samoa were exposed to 73.9 heatwave days each, on average. Of these, 71.2 (96%) would not have been expected to occur without climate change. (Indicator 1.1.1)



Rising temperatures also threaten the health benefits associated with outdoor physical activity. In 2024, individuals experienced over 550 more hours per person during which ambient heat would have posed a moderate or higher risk of heat stress if undertaking moderate outdoor physical activity (e.g., running), relative to the 1990–1999 baseline average. (Indicator 1.1.2)



In 2024, heat exposure resulted in a loss of approximately 10 million potential labour hours. Workers in the agricultural sector experienced 73% of these losses. (Indicator 1.1.3)



The potential income lost from labour capacity reduction due to extreme heat was US\$14.7 billion in 2024 in the SIDS region. Workers in the agricultural and construction sectors were severely affected, incurring 31% and 32% of the respective losses in 2024. (Indicator 4.1.3)

Sea level rise

Sea level rise poses risks through flooding, erosion, water contamination, and disease spread. Populations living less than one metre above sea level in Samoa are particularly vulnerable. Without adequate adaptation, relocation may be necessary, with health outcomes depending on the support provided to migrant and immobile populations.

17,000 people which make up around 8% of the population were living within 1 metre above sea level in 2024. (Indicator 2.3.3)



The sea surface temperature in coastal areas of Samoa were 0.6 C higher in 2024 compared to 1981-2010. (Indicator 1.4)

ESCALATING RISKS

Sea level rise and warming coastal waters threaten ecosystems and human health through flooding, erosion, water contamination, and increased disease risks. For low-lying areas like Samoa, these changes heighten displacement pressures and strain health systems, making adaptation critical to protect communities.

Climate and Health in Policy

Mentions of climate and health in United Nations General Assembly (UNGA) statements reflect a nation's priorities and global engagement, helping to spotlight vulnerabilities, advocate for support, and shape international action on climate-related health risks



Samoa mentioned climate change and health, independently, every year from 2018 to 2024. In these 7 years, they mentioned the intersection of the two in every year except 2024. (Indicator 5.4.1)

Data Scarcity and Importance of Local Data Sources

Low data availability is one of the key challenges in measuring and monitoring climate change and health impacts in Small Island Developing States (SIDS). Global datasets, particularly gridded satellite monitored data, are often of too coarse resolution for small countries, and can therefore not be used. Many modelling models, such as for greenhouse gas emissions, are also often not suitable to run over very small areas, further limiting the available data. For a large proportion of indicators in the 2024 SIDS regional report (39 out of 59), data was available for some of the larger islands but only 13 had suitable data for over 30% of the countries in this region. This was true for both modelled and reported data, highlighting both technical limitations but also a lack of monitoring and reporting to international organisations such as the World Health Organisation (WHO).

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