LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE
In collaboration with Wellcome

A decade tracking progress on health and climate change

GUATEMALA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE
DATA SHEET 2026

Health and Climate Change in Guatemala

The Lancet Countdown on Health and Climate Change tracks the connections between health and climate change. In its tenth iteration, the 2026 Global Report shows that the health impacts of climate change have escalated, and frequently accelerated, in the decade since the Paris Agreement came into force. The Lancet Countdown Latin America tracks these links across the region, and its forthcoming 2026 report will provide the latest assessment of progress and challenges on health and climate change across Latin America.

This document draws on findings from both the **2026 Lancet Countdown Global Report (indicators represented in bold)** and the forthcoming 2026 Lancet Countdown Latin America Report to present key insights for Guatemala.

Increasing heat exposure is affecting vulnerable populations and workers in Guatemala, with consequences for health, physical activity, livelihoods and income.

Extreme drought has become substantially more widespread in Guatemala, threatening water availability, food security and livelihoods. Environmental conditions have also become more favourable for dengue transmission, presenting additional risks to health.

Guatemala has recognised health in its national climate commitments, while a growing body of scientific research provides evidence on the health impacts of climate change. Further integration of health into national climate policy can support evidence-informed action.

Household air pollution contributes to substantial premature mortality in Guatemala, while electricity accounts for a very small share of cooking energy use.

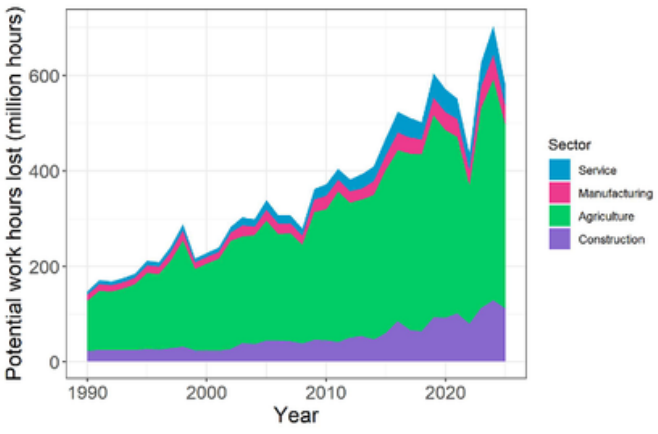
Heat and Health

Exposure to high temperatures increases 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.

Children under one year of age and adults over 65 in Guatemala each experienced approximately 5 additional heatwave days annually between 2016 and 2025 compared with 2006–2015, reaching an average of approximately 6 to 7 heatwave days per year. **(Indicator 1.1.1)**

The average annual monetised value of heat-related mortality among people aged over 65 in Guatemala was approximately US$638 million between 2021 and 2025, equivalent to around 36,600 average annual incomes. This was a 782% increase compared with 2000–2004. **(Indicator 4.1.2)**

Annual potential work hours lost, disaggregated by economic sector. Guatemala, 1990-2025.



Two of the four Guatemalan cities (urban centres with more than 150,000 inhabitants) assessed were classified as having low urban greenness in 2025. Increasing urban vegetation can help reduce heat exposure and support physical and mental health. (Indicator 2.2.3; Latin America Report)

People in Guatemala were exposed to over 960 hours per year in which heat posed a moderate or higher risk of heat stress during moderate outdoor physical activity (e.g., brisk walking) between 2016 and 2025, approximately 250 hours more than the annual average in the 1990s. **(Indicator 1.1.2)**

Heat exposure caused an average annual loss of approximately 562 million potential labour hours in Guatemala between 2016 and 2025, 179% higher than the annual average in the 1990s. Agriculture accounted for approximately 68% of these losses. **(Indicator 1.1.3)**

Heat-related labour capacity reduction in Guatemala caused an estimated potential earnings loss of US$1.2 billion in 2025, equivalent to approximately 1% of national GDP. Agriculture accounted for 54% of these losses, followed by construction at 24%. **(Indicator 4.1.3)**

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Drought and Climate-Sensitive Infectious Diseases

Drought can threaten water availability, food security and livelihoods, with consequences for health and wellbeing. Changes in temperature and rainfall can also influence the environmental suitability for mosquito-borne disease transmission.

An average of 56% of Guatemala's land area experienced at least one month of extreme drought annually between 2021 and 2025, compared with 20% in 1981–1990. **(Indicator 1.2.2)**

The transmission potential (R_0) of dengue spread by *Aedes aegypti* mosquitoes in Guatemala was 22% higher between 2016 and 2025 than in 1951–1960, reaching an average R_0 of 2.1. This indicates environmental conditions suitable for dengue transmission. **(Indicator 1.3.1)**

Health in Climate Policy and Research

Integrating health into national climate commitments and strengthening scientific research can help inform policies that protect populations from climate-related health risks. In Guatemala, health has been recognised in national climate policy, while research continues to examine the impacts of climate change on health.

Guatemala mentioned health topics in both of its NDCs. Its most recent NDC, submitted in 2021, substantially increased health-related content from 11 to 60 mentions, particularly covering overall health, nutrition, disease and infectious diseases. **(Indicator 5.4.1)**

Guatemala's 2016 National Climate Change Action Plan, the Plan de Acción Nacional de Cambio Climático, includes health-related adaptation measures. Its assessment identified health infrastructure and disaster risk as the most comprehensively addressed topics, while infectious diseases, cardiorespiratory diseases, malnutrition and injuries received limited attention. Mental health was not addressed, and no financing was specified for the health topics assessed. (Indicator 2.1.2; Latin America Report)

An average of 11 scientific papers on climate change and health focused on Guatemala annually between 2023 and 2025. Of the 11 papers published in 2025, eight examined the health impacts of climate change, while three addressed adaptation. **(Indicator 5.3.1)**

Household Energy and Health

The use of polluting household fuels contributes to harmful air pollution, increasing the risk of respiratory and cardiovascular diseases and premature mortality. According to the World Health Organization (WHO), Guatemala's annual mean concentration of fine particulate matter ($PM_{2.5}$) was 21 μg/m³, more than four times the WHO annual guideline of 5 μg/m³. Expanding household electrification powered by renewable electricity can reduce exposure to harmful air pollution from fuel combustion in homes, protect health and lower greenhouse gas emissions.

Household air pollution from the use of polluting fuels was associated with an estimated 6,600 deaths in Guatemala in 2023, an 8.4% increase from 2016. **(Indicator 3.2.2)**

Electricity accounted for only 0.3% of reported cooking energy use in Guatemala in 2023. (Indicator 3.1.2; Latin America Report)

Romanello M, Walawender M, Israelsson J et al. The 2026 report of the Lancet Countdown on health and climate change: A decade of escalating health harms and a decisive moment for all. The Lancet 2026; published online October 2026. https://doi.org/10.1016/S0140-6736(26)01779-4
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