

DENMARK

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2024

Health and climate change in Denmark

The *Lancet* Countdown on Health and Climate Change annually takes stock of the evolving links between health and climate change through 50+ peer-reviewed indicators. Since 2016, these indicators have provided regular, reliable global and regional stocktakes on climate change and health. Data in this year's report reveal that people all around the world are facing record-breaking threats to their wellbeing, health and survival from the rapidly changing climate. This document summarises key country-level findings from the 2024 report of the *Lancet* Countdown* and the 2024 Europe report of the *Lancet* Countdown** for Denmark, which reveal that:



The persistent net **subsidising of fossil fuels** of billions of dollars restricts funds available for health-supportive services, and hampers a transition towards clean, zero-emission energy.



Unhealthy, **unsustainable diets** are contributing to GHG emissions and undermining health and wellbeing in Denmark.



The suitability for transmission of many **infectious diseases**, including vector-borne, food-borne, and water-borne diseases, is influenced by climate change.

These findings underline the urgency of redirecting finance away from health-harming fossil fuels; and towards strengthening local health systems, adapting to climate change, and pursuing efforts to reduce greenhouse gas (GHG) emissions through interventions that simultaneously deliver health co-benefits.

Air pollution, energy transition and health co-benefits

The continued use of fossil fuels and biomass lead to high levels of air pollution, which increases the risk of respiratory and cardiovascular disease, lung cancer, diabetes, neurological disorders, adverse pregnancy outcomes, and leads to a high burden of disease and mortality.



In 2022, Denmark's use of coal has decreased since 2000 and accounted for close to 7% of the country's total energy supply. Low carbon sources (including renewables) have increased, contributing 12% to the total energy supply in 2022 (indicator 3.1.1).



The use of fossil fuels for household energy use decreased from 34.5% in 2000 to 17% in 2021, while renewable energy grew from 34% to 42%. The share of energy from electricity has remained relatively stable, hovering around 22%. However, the use of heavily polluting solid biomass increased from 10% to 19% over the same period (indicator 3.1.2).

Carbon prices help economies transition away from high-carbon fuels, whereas fossil fuel subsidies provide incentives for health-harming emissions and slow the low-carbon transition. Redirecting fossil fuel subsidy funds to incentivising the expansion and affordability of low-carbon power and to health-promoting interventions would deliver net benefits to local populations and support a just transition.



In 2022, Denmark had a net-negative carbon revenue, indicating that fossil fuel subsidies were higher than carbon prices. The country allocated a net total of over US\$670 million in fossil fuel subsidies in 2022 alone (indicator 4.3.3).

HEALTH IMPACTS OF AIR POLLUTION



In 2021, approximately 48 deaths per 100,000 were attributable to anthropogenic air pollution (PM_{2.5}) (indicator 3.2.1).

US\$12.9 billion

is the monetised value of premature mortality due to anthropogenic air pollution in 2021 (indicator 4.1.4).

Diet, food security and health

Promoting shifts to healthier, more plant-based diets can substantially reduce agricultural GHG emissions, while also delivering major co-benefits for public health through improvements to dietary risk factors and reduced deaths due to unbalanced diets.

56%

In 2021, consumption of red meat and dairy led to emissions of 0.83 tCO₂e per person, 56% of total emissions using consumption-based accounting. In that year, production of red meat and dairy led to emissions of 1.41 tCO₂e per person, accounting for 72% of all agriculture production-related emissions (indicator 3.3.1).

In 2021, over 3,000 deaths were attributable to excessive consumption of red meat and dairy, and nearly 1,400 deaths were associated with insufficient consumption of nutritious plant-based foods (including fruits, vegetables, legumes, wholegrains, nuts and seeds). Together, these accounted for 64% of all diet-related deaths that year (indicator 3.3.2).

MARINE FOOD SECURITY

Climate change is compromising marine resources through higher coastal sea surface temperatures, reduced oxygenation, ocean acidification, and coral reef bleaching.

From 2021–2023, average coastal temperature exceeded the 1981–2010 average by 1.1°C (indicator 1.4.2). This shift underscores the threat to marine food security induced by climate change.

Vulnerability to infectious disease

There is a rising trend in tick climatic suitability. *Ixodes ricinus* ticks are the dominant European tick species associated with the transmission of pathogens, including for *Borrelia burgdorferi* causing Lyme disease and tick-borne encephalitis.

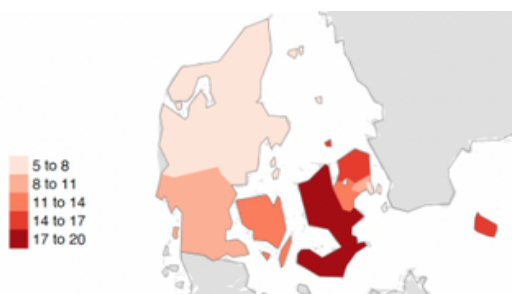
Denmark witnessed an increase in months suitable for *Ixodes ricinus* nymph feeding activity when comparing 1951–60 with 2013–22, extending the period of suitable activity from 4.85 to 5.61 months (indicator 1.3.6).**

Heat and health

Exposure to high temperatures threatens people's lives, health, and wellbeing, leading to death and heat-related disease, and increasing healthcare demand during heatwave episodes. Older people, socio-economically deprived communities, very young children, pregnant people, and those with underlying health problems are particularly at risk.

In 2013–2022, Denmark's overall mean increase in heat-related deaths was estimated to be 10 deaths per 100,000 inhabitants, rising from approximately 30 in 2003–12 to 41 in 2013–22 (indicator 1.1.4).**

From 2014–2023, the total number of heatwave days experienced annually by children under the age of one was 0.5x greater than the equivalent demographic from 1986–2005. Adults over age 65 experienced a 1.2x increase in heatwave days across the same timeframe (indicator 1.1.1).



CHANGE IN HEAT-RELATED MORTALITY RATE IN DENMARK
EXPRESSED AS THE NUMBER OF DEATHS PER 100,000
INHABITANTS BETWEEN 2003–12 AND 2013–22.**

ECONOMIC IMPACT OF HEAT

Heat exposure limits labour productivity, which undermines livelihoods and the social determinants of health.

US\$9.2 million was the potential income loss from labour capacity reduction due to heat in 2023 (indicator 4.1.3).

Close to 310,000 potential labour hours were lost due to heat exposure in 2023 (indicator 1.1.3). Construction workers were hit the hardest, seeing 59% of the potential hours lost (indicator 1.1.3) and 67.5% of the potential income losses in 2023 (indicator 4.1.3).

FOR FURTHER INFORMATION, VISIT WWW.LANCETCOUNTDOWN.ORG

* Romanello M, Walawender M, Hsu SC et al. The 2024 report of the Lancet Countdown on health and climate change: Facing record-breaking threats from delayed action. Lancet 2024; published online October 2024. [https://doi.org/10.1016/S0140-6736\(24\)01822-1](https://doi.org/10.1016/S0140-6736(24)01822-1)

** van Daalen KR, Tonne C, Semenza JC et al. The 2024 Europe report of the Lancet Countdown on health and climate change: Unprecedented warming demands unprecedented action. The Lancet Public Health. [https://doi.org/10.1016/S2468-2667\(24\)00055-0](https://doi.org/10.1016/S2468-2667(24)00055-0)