



Health central to climate change action

Fact sheet

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Climate change is affecting health now, and will continue to do so.

Climate has a serious adverse impact on health, as well as on future economic prosperity, political stability and societal productivity.

A WHO assessment concluded that climate change is expected to cause over 250 000 additional deaths per year between 2030 and 2050. European populations will not be spared – climate change and its impact recognize no borders.

Health protection is a priority for investment.

Adaptation is necessary both to address the current burden of disease, as well as additional burden, posed by climate change, and strengthen mainstream public health and health services to create climate-resilient communities. Twenty-four of fifty-three Member States of the WHO European Region have included health in national adaptation strategies or plans.

Such measures for the health sector involve:

- enhancing disease surveillance, especially for climate-sensitive vector-borne diseases;
- monitoring changing environmental exposures;
- ensuring essential medical supplies and health service provision during disasters;
- improving preparedness, planning and response for heat-waves and other extreme events;
- facilitating coordination between health and other sectors to deal with changes in the incidence and geographic range of diseases.

Evidence suggests that there is a very high benefit-to-cost ratio for health adaptation, with higher benefits being achieved with early action on adaptation.

Health systems can lead by example.

Health care provision accounts for approximately 10% of gross domestic product in the WHO European Region. The health sector can also improve its own practices and at the same time minimize its carbon emissions. Health services in some developed countries are responsible for between 5% and 15% of carbon emissions. Energy efficiency, shifting to renewables, and greener procurement and delivery chains can improve services and business continuity, cut carbon emissions and improve the climate resilience of health systems.

KEY FACTS

- **Heat:** A WHO study estimated 32 152 additional annual heat-related deaths in 2050, in the WHO European Region. Heat-related effects for the EU27 in the 2020s are valued at €13bn–€30bn.
- **Flooding:** Flooding events occurred in 50 of the 53 countries in the WHO European Region during the past decade, affecting 8.7 million over 2000–2014. Additional cases of mental health issues due to coastal flooding could cost €1bn–€1.4bn per year.
- **Vector-borne disease:** Local changes in temperature and rainfall have altered the distribution of some disease vectors — such as ticks, mosquitoes and sandflies — which has had a significant impact on the occurrence of disease outbreaks in Europe over the past fifty years.
- **Food safety and security:** Crop yields could decrease up to 30% in central Asia by the middle of the 21st century and yields in southern parts of Europe may decline by up to 25% under the high emission warming scenario. Increased health care costs are expected from more *Salmonella* infections with estimated additional annual cost of €70m–€140m by the 2020s
- **Water safety and security:** Globally, there is a projected 20% decrease in renewable water resources per each degree Celsius of temperature increase.

More information:

www.euro.who.int/climatechange
www.who.int/globalchange



Mitigating climate change can bring large and immediate benefits for health, the economy, and other societal goals.

Deep cuts in greenhouse gas emissions to limit warming to 2°C relative to pre-industrial levels remain possible, yet will entail substantial technological, economic, institutional and behavioural changes. Acting to reduce greenhouse gas emissions protects human health from the direct and indirect impacts of climate change. The cost savings of the health co-benefits achieved by policies to cut greenhouse gas emissions are potentially large.

Beneficial collateral effects are called health co-benefits. Examples range from:

- health co-benefits arising from reduced air pollution, as nearly all non-CO₂ air pollutants that alter climate (e.g. black carbon and ozone-producing gases) have direct effects on health: 3.7 million deaths globally (482 000 in the WHO European Region) are attributable to ambient air pollution in 2012;
- reduced dietary saturated fat consumption from animal products improves nutrition and reduces cardiovascular disease: a 30% reduction in the adult consumption of saturated fat from animal sources would reduce heart disease in the UK population by around 15%;
- promoting active transport resulting in increased physical activity due to reduced car use, with added benefit of reduced air pollution: in Austria, which has a 5% modal share of cycling (2009) with an average length of trips of 2 km, it is estimated that cycling saves 412 lives every year through regular physical activity.

Most cost estimates of climate change exclude benefits of mitigation and other benefits (e.g. including those related to human health, food security, biodiversity, local environmental quality, energy access, livelihoods, and equitable sustainable development). In assessing the sectoral interventions necessary to reach 450–500ppm CO₂eq by 2100, IPCC Fifth Assessment Report Working Group III notes that mitigation scenarios show reduced costs for achieving air quality and energy security objectives, with significant co-benefits for human health, ecosystem impacts, and sufficiency of resources and resilience of the energy system.

Countries are already taking important action, but ambition needs to be raised.

Implementing the commitments made under the Intended Nationally Determined Contributions (INDCs) would bring global warming down towards the widely agreed 2°C target, but would still leave populations exposed to some increased health risks from climate change. Fifty-two of fifty-three Member States of the WHO European Region have submitted INDCs, but only nine have specifically included health.

The European Environment and Health Process provides an ideal platform to further advocate for mitigation and adaptation action as well as monitoring developments and sharing lessons learnt.

Sources

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<http://www.who.int/phe/publications/climate-reducing-health-risks>

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