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AUTHORS

Amjad Agil
Public Policy Impact Facilitator, UCL

Dr Olivia Stevenson
o.stevenson@ucl.ac.uk
(Acting) Head of UCL Public Policy

Nick Watts
nicholas.watts.12@ucl.ac.uk
Head of Project, Lancet Commission on Health and
Climate Change: Emergency Actions to Protect Human
Health

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KEY MESSAGES

- **Achieving a decarbonised global and national economy, and securing the public health benefits it offers is no longer primarily a technical or economic question – it is now a political one**
- **Responding to climate change could be the greatest global health opportunity of the 21st century.** Carbon reduction strategies often also result in substantial health benefits, reducing the cost of healthcare, and relieving pressure on existing and future national health budgets
- **Climate change impacts have far-reaching effects**, indirectly affecting other countries through shared natural resources, global supply chains and trade, and the flow of people and finance around the world.
- **National adaptation planning is a critical component of climate resilience**, and must consider and respond to the health impacts of climate change. Developing stronger climate-ready health systems will enable them to act as anchors of community resilience.
- The health community has a vital role to play in responding to climate change. By incorporating health expertise in to national decision-making processes, **governments can ensure that mitigation and adaptation interventions are designed in a way that maximises public health and human wellbeing.**



Briefing for national policymakers

Climate change threatens all sectors of the economy

The private sector, health organisations, and individuals all have an important role to play in addressing the threat of climate change to health. However, ultimately there is a need for national and international policymakers to act urgently across all sectors, and take a strategic leadership role in raising awareness and committing adequate and sustainable resources to reduce the worst impacts of climate change over the long term.

The 2015 Lancet Commission reviews the impacts of climate change on human health, and discusses the adaptation and mitigation policies available to protect and improve public health, providing key recommendations for national policy makers.

Global environmental change – local consequences

With current greenhouse gas (GHG) emissions projections showing a global warming scenario of 2.6-4.8°C by the end of the century - much higher than the target 2°C increase - climate change poses an unacceptably high and potentially catastrophic risk to human health. Indeed, **it threatens to undermine the last half-century of gains in development and global health, adding pressure on vulnerable populations health, particularly in developing countries.**

Prosperity and national security depend heavily on global stability. Direct impacts of climate (e.g. heat waves, storms, forest fires, floods or droughts), or those indirectly mediated through the effects of climate change on ecosystems (e.g. agricultural losses and changing patterns of disease), economies and social structure (e.g. migration and conflict) pose significant threats to human health in multiple intersecting ways. To this end, climate change threatens social stability by affecting the availability and accessibility of food, water, land and energy, as well as the stability of critical infrastructure.

The Commission conducts new analysis on the human exposure to climactic change over the coming decades, concluding that current estimates may significantly underestimate the threat to human health. Adjusting for present and projected geographical distribution and demographics, the Commission highlights that 'human populations are likely to be growing, ageing and migrating

towards greater vulnerability to climate risks.’ Ecological processes (e.g. impacts on biodiversity and changes in disease vectors) and social dynamics may amplify the risk.

Ultimately, the Commission estimates an additional 3 billion exposure events of heatwave for elderly populations, 1.4 billion additional person drought exposure events, and 2 billion additional ‘flood’ events, annually by the end of the century.

FOOD SECURITY

A changing global climate risks decreasing yields from essential, climate-sensitive crops, which in turn has a significant impact on food security in regions that are already food insecure, pushing up food prices and contributing to malnourishment. In the short-term **climate change is likely to exacerbate volatility of import prices and cause disruptions of food supply**. Over the longer term the increasing impacts of climate change could lead to more pervasive systemic changes to labour, farmer livelihoods and consumers of food, with knock on effects in health outcomes for all these groups.

Responding to climate change and protecting public health

More tangible and visceral than tonnes of atmospheric CO₂, health and wellbeing is understood and prioritised across all populations regardless of culture or development status. **Placing public health at the centre of climate change policy has the potential to unite all actors behind a common cause** - the health and wellbeing of our families, communities, and countries.

Many mitigation and adaptation responses to climate change are ‘no-regret’ options, which enhance community resilience, alleviate poverty, and address global inequity.

These are sensible public health and development interventions that have the added benefit of reducing carbon emissions and mitigating climate change.

HEAT WAVES

Temperatures, and extremes of temperature are projected to rise, posing risks to health and wellbeing. For example, hotter summers increase vulnerability to **heat-related morbidity** and there is strong evidence that heat-related mortality (due to age and dehydration) is rising as a result of climate change. Heat poses significant risks for outdoor physical labourers in hot and humid regions. Rising **heat reduces work capacity and labour productivity**. The **percentage loss of GDP due to increasing workplace heat is greater than the current spending on health systems in many low- and middle-income countries**. This will be amplified by direct climate change impacts on crop and livestock production.

Decarbonisation pathways

The Deep Decarbonisation Pathways Project (DDPP) aims to understand and show how major emitting countries can transition to low carbon economies and hit internationally agreed 2°C targets by 2050. The Project, which is led by the UN Sustainable Development Solutions Network (SDSN) and the Institute for Sustainable Development and International Relations (IDDRI), comprises representatives of 15 countries who contribute to more than 70% of current global GHG emissions. Interim insights show that three key pillars of decarbonisation are crucial in all the countries studied: energy efficiency and conservation, a shift to low-carbon electricity, and a switch to lower carbon fuels. However, the balance between these pillars depends on national circumstances.

Recommendations

To accelerate progress on climate change over the next five years, the Lancet Commission recommends that national governments:

1. **Protect cardiovascular and respiratory health through the rapid phase out of coal from the global energy mix.** Many of the 2,200 coal-fired plants currently proposed for construction should be replaced with healthier, cleaner energy alternatives.
2. **Encourage a transition to cities that support lifestyles that are healthy for the individual and the planet.** This should include developing a highly energy efficient building stock; supporting active transportation; and increasing access to green spaces. These measures will also reduce urban pollution and GHG emissions and could reduce rates of cardiovascular diseases, cancer, obesity, diabetes, mental illness and respiratory diseases.
3. **Establish the framework for a strong, predictable, and international carbon pricing mechanism,** and taper down national fossil fuel subsidies to help catalyse action on a range of mitigation and adaptation interventions necessary to put the country on a low-carbon, climate resilient pathway.
4. **Ensure that the health impacts of national energy policies are built-in to government regulation and decision-making processes.** The avoided burden of disease, reduced healthcare costs, and enhanced economic productivity must be accurately quantified, with adequate local capacity and political support to develop low-carbon healthy energy choices.
5. **Invest in climate change and public health research, monitoring and surveillance** in order to ensure a better understanding of adaptation needs and potential health co-benefits of climate mitigation at local and national levels.

At an institutional level, the Commission highlights the importance of adopting mechanisms to enhance collaboration between Ministries of Health and other government departments. This will empower health professionals and ensure that health and climate considerations are thoroughly integrated in government-wide strategies. A siloed approach to protecting human health from climate change will not work.

National policymakers also have an important role at the international level, working to support an ambitious agreement within the UN Framework Convention on Climate Change. Whilst these negotiations are very complex, their goals are simple: **they must agree on ambitious and enforceable global mitigation targets, mitigation and adaptation finance to protect countries’ right to sustainable development, and the policies and mechanisms which enable these measures.** To this end, international responsibility for reducing GHG emissions is shared – **within the UNFCCC, interventions, which reduce emissions and promote global public health, must be prioritised regardless of national boundaries.**

2015 LANCET COMMISSION ON HEALTH AND CLIMATE CHANGE

The Commission is an international, independent collaboration of academic experts, formed to map out justification for policy responses to climate change. It is a collaboration between European and Chinese climate scientists, geographers, social and environmental scientists, biodiversity experts, engineers, energy policy experts, economists, political scientists, public policy experts, and health professionals – all seeking a response to climate change which protects and promotes human health. It is supported by administrative, communications, and design personnel.