The Lancet Commission on Health and Climate Change

Key findings

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Health and climate change

“Tackling climate change could be the greatest global health opportunity of the 21st century.”

A Commission by The Lancet
Today

• Overview to the Lancet Commission Report

• Panel discussion around the health impacts of climate change,
  – Moderated by Dr. Linda Rudolph

• Question and answer session
Introducing the Commission

The mission

Map out the impacts of climate change, and the necessary policy responses, in order to ensure the highest attainable standards of health for populations worldwide.
International collaboration
Commissioners

• Health professionals
• Climate scientists
• Geographers
• Social and environmental scientists
• Biodiversity experts
• Engineers
• Energy policy experts
• Economists
• Political scientists
• Public policy experts
Scope of the Commission’s report

• Review the climate science and the impacts of climate change on human health
• Present policy response options around four central themes:
  – community resilience and adaptation
  – energy and technical solutions
  – economic policy and financing mechanisms
  – political mechanisms
1. HEALTH IMPACTS
Health impacts of climate change

• Climate change is the greatest global health threat of the 21\textsuperscript{st} century

• The health risks from climate change are:
  1. Potentially catastrophic for human survival;
  2. Undermine the last half-century of gains in development and global health;
  3. A medical emergency,
The Lancet Commissions

Progress on the proposed SDGs for securing sustainable energy for all by 2030 include: ensuring universal access to affordable, sustainable, reliable energy services; doubling the share of renewable energy in the global energy mix; doubling the global rate of improvement in energy efficiency; phasing out fossil-fuel production and consumption subsidies that encourage wasteful use, while ensuring secure and affordable energy for the poor.

The health burden of the current energy system

Although linked to a historical transformation in health, a fossil-fuel-based energy system also imposes significant health burdens (figure 10). The direct burden occurs through emissions of particulates and solid wastes (coal, oil, gas, biomass), risk of flooding (hydroelectricity), accidents and injuries (all), and emission of radioactive materials (coal, nuclear). But as the main driver of anthropogenic climate change, an energy system based on fossil fuels will also have indirect effects through climate change and the increase in temperatures, extreme weather, heatwaves, and variable precipitation (see section 1).

The immediacy of this burden varies with the inertia built into the emission to exposure pathways and exposure to health-effect pathways. Compared with climate change, the locality and visibility of fossil fuel emissions are more apparent today as poor air quality and toxic discharges, such as smog in Beijing or Delhi. A disease and lung cancer. The exposure to emissions can result in immediate health effects for the local population, such as respiratory tract infections, or take many years or decades to have an effect. A coal-fired station will produce immediate CO\textsubscript{2} emissions, but these emissions do not result in immediate health impact. Instead, GHG emissions that accumulate in the atmosphere over the long term will result in global climate change. The long-term nature of climate change means that these exposures build towards a more dangerous level. Another dimension is locality of the emissions-exposure, exposure-health effect pathways. Locally generated emissions will affect both the population surrounding the point of discharge and in some cases more widely, as in burning coal in north Asia. Climate change, however, will affect all areas to varying degrees.

The global increased use of energy per capita is highly related to considerable improvements in quality of life across much of the world. The majority of this energy use is derived from fossil-fuel use, but mainly coal. Coal’s wide availability and economic attractiveness has made it the fuel of choice for use in power generation. The recent expansion of coal use, mainly in the newly industrialising countries, effectively reverses the global pattern through most of the 20th century towards less carbon intensive and less polluting fossil fuels—the progressive displacement of coal by oil, and of both by natural gas. However, the time when fuel switching would begin to occur is uncertain. The most likely path forward is one in which the world moves away from fossil fuels towards a more sustainable energy system, with a greater emphasis on renewable energy sources.
Global Health Exposure

- 3 billion additional exposure events for elderly people experiencing heat-wave
- 1.4 billion additional person drought exposure events per year by the end of the century
- 2 billion additional extreme rainfall exposure events annually
Globally, uneven impacts

- Women, children and the poor worst affected:
  - Additional 20-25 million under-nourished children by 2050 (17-22% global increase)
  - Low and middle-income countries often unable to adapt - higher exposures, burden of disease
  - Natural disasters kill more women than men
2. CO-BENEFITS
Responding to climate change could be the biggest global health opportunity of the 21st century.
Policy response – co-benefits

• The Commission recommends that over the next five years, governments:

  1. Invest in climate and public health research, monitoring and surveillance
  2. Scale-up financing for climate-ready health systems
  3. Rapid phase out of coal-fired plants to protect cardiovascular and respiratory health
  4. Encourage a transition to cities that support and promote healthy lifestyles
3. THE WAY FORWARD
It is possible

“Achieving a decarbonised global economy and securing the public health benefits it offers is no longer primarily a technical or economic question – it is now a political one”
Policy response – macro-level

The Commission highlights four steps needed:

1. **Carbon price** – a coalition to push forward;
2. Rapid access to low-carbon affordable energy;
3. Better capacity, support, and legislation around quantification of the health impacts/co-benefits;
4. Establish and implement an international agreement that supports countries in transitioning to a low-carbon economy.
4. A PUBLIC HEALTH ISSUE
A public health issue

• The health community has a **vital role to play** in accelerating progress to tackle climate change (as it did with public sanitation and smoking)

• Key areas:
  – Communicating about health and climate risks and opportunities
  – Ensuring mitigation strengthens public health
  – Adapting to face new and emerging health risks
  – Reducing emissions from health services
2030 Countdown
Global Health and Climate Action
Climate change threatens to undermine the last half century of health gains, and should be considered a medical emergency. The effects of climate change are being felt today, are unacceptably high, and potentially catastrophic.

Tackling climate change could be the greatest global health opportunity of the 21st century.

Achieving a decarbonised global economy and securing the public health benefits it offers is no longer primarily a technical or economic question – it is now a political one. Many mitigation and adaptation responses to climate change are “no-regret” options.

The health community has a vital part to play in accelerating progress to tackle climate change (as it did with public sanitation and smoking).