

Protecting health from climate change

World Health Day 2008

Summary of issues paper

Climate change puts at risk the basic determinants of health

There is now widespread agreement that the earth is warming, due to emissions of greenhouse gases caused by human activity. It is also clear that current trends in energy use development and population growth will lead to continuing – and more severe – climate change.

The changing climate will inevitably affect the basic requirements for maintaining health: clean air and water, sufficient food and adequate shelter. Each year, about 800 000 people die from causes attributable to urban air pollution, 1.8 million from diarrhoea resulting from lack of access to clean water supply, sanitation, and poor hygiene, 3.5 million from malnutrition and approximately 60 000 in natural disasters. A warmer and more variable climate threatens to lead to higher levels of some air pollutants, increase transmission of diseases through unclean water and through contaminated food, to compromise agricultural production in some of the least developed countries, and increase the hazards of extreme weather.

Climate change also brings new challenges to the control of infectious diseases. Many of the major killers are highly climate sensitive as regards to temperature and rainfall, including cholera, and the diarrhoeal diseases, as well as diseases including malaria, dengue and other infections carried by vectors. In sum, climate change threatens to slow, halt or reverse the progress that the global public health community is now making against many of these diseases.

In the long run, however, the greatest health impacts may not be from acute shocks such as natural disasters or epidemics, but from the gradual build-up of pressure on the natural, economic and social systems that sustain health, and which are already under stress in much of the developing world. These gradual stresses include reductions and seasonal changes in the availability of fresh water, regional drops in food production, and rising sea levels. Each of these changes has the potential to force population displacement and increase the risks of civil conflict.

All populations are vulnerable – but some are more vulnerable than others

All populations will be affected by a changing climate, but the initial health risks vary greatly, depending on where and how people live. People living in small island developing states and other coastal regions, megacities and mountainous and polar regions are all particularly vulnerable in different ways.

Health effects are expected to be more severe for elderly people and people with infirmities or pre-existing medical conditions. The groups who are likely to bear most of the resulting disease burden are children and the poor, especially women. The major diseases that are most sensitive to climate change – diarrhoea, vector-borne diseases like malaria, and infections associated with undernutrition – are more serious in children living in poverty.

We have a common interest in facing up to health risks wherever they occur in the world. Ongoing climate change, coupled with globalization, will make it more difficult to contain infectious diseases within their current ranges. Health challenges arising from population displacement and conflict are unlikely to stay confined within national borders. Improved health conditions for all populations, alongside more rapid and effective international disease surveillance, constitute a vital contribution to global public health security.

Protecting human health is the “bottom line” of climate change strategies

Climate change can no longer be considered simply an environmental or developmental issue. More importantly, it puts at risk the protection and improvement of human health and well-being. A greater appreciation of the human health dimensions of climate change is necessary for both the development of effective policy and the mobilization of public engagement.

Strengthening of public health services needs to be a central component of adaptation¹ to climate change. The international health community already has a wealth of experience in protecting people from climate-sensitive hazards, and proven, cost-effective health interventions are already available to counter the most urgent of these. Broadening the coverage of available interventions would greatly improve health now. Coupled with forward planning, it would also reduce vulnerability to climate changes as they unfold in the future.

The diverse, widespread, long-term and inequitable distribution of health risks makes climate change a truly global challenge, calling for an unprecedented degree of partnership. An effective response will require actions from across society: from individuals, the health sector, and community and political leaders. A fair and effective response will require a sharing of responsibilities between the populations that make the greatest contribution to climate change and those that are most vulnerable to its effects, in order to safeguard and enhance global public health security.

¹ **Adaptation** is defined as the adjustment in natural or *human systems* in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory, autonomous and planned adaptation (IPCC. WGII Report Appendix 1: Glossary. 2007)