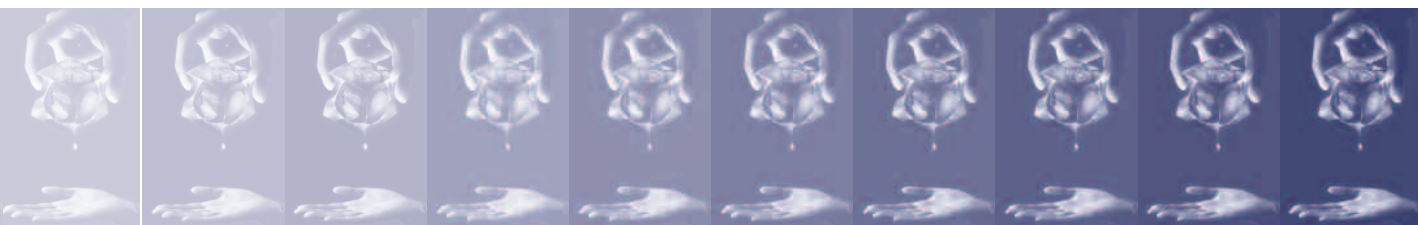




Protecting HEALTH in Europe from climate change



Protecting HEALTH in Europe from climate change



Editors: Bettina Menne, Franklin Apfel, Sari Kovats and Francesca Racioppi

ABSTRACT

There is now scientific consensus that climate change affects health through changing weather patterns (for example, more intense and frequent extreme events) and indirectly through changes in water, air, food quality and quantity, ecosystems, agriculture, livelihoods and infrastructure. The effects will be unevenly distributed, and the people at greatest risk include the poor, very young, elderly and/or ill. Climate change can also pose a threat to health security. Failure to respond could be very costly in terms of disease, health care expenditure and lost productivity. This publication intends to stimulate debate and support an active response by providing up-to-date information on the health effects, as well as practical guidance on specific actions that decision-makers at different levels in health and other sectors can take now.

As long as climate change is not too rapid or strong, many of the health effects can be controlled by strengthening health systems. This can include strengthening preparedness, public health services and health security, advocating action in other sectors to benefit health, better informing citizens and leading by example. Health systems need to strengthen their capacity to assess potential climate-related health effects, to review their capacities to cope, and develop and implement adaptation and mitigation strategies, and to strengthen a range of key areas of work – from disease surveillance and control to disaster risk reduction – that are essential for rapid detection of and action against climate-related risks.

Keywords

CLIMATE - trends
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FOREWORD

There is growing evidence and scientific consensus that climate change is real. Over the past years, many countries across the WHO European Region have experienced increasing numbers of heat-waves, floods and/or droughts, which resulted in tens of thousands of deaths. Climate change has been related to the increasing frequency and severity of these events.

For the future, higher temperatures, sea-level rise, further melting of ice, snow and the frozen ground, as well as an increased number of drought, heat-wave and heavy precipitation events, are expected. These climate phenomena are expected to affect food productivity, water quantity and quality, air quality and the distribution of plants and animal species. These changes have already affected health and are likely to continue to do so. For example heat-, flood- and drought-related mortality and morbidity are likely to increase; changes in the distribution of plant species and animals are likely to contribute to changing ranges of infectious diseases and allergic disorders; and higher concentrations of ground-level ozone and particulate matter in urban areas increase the frequency of cardiorespiratory diseases. The populations in the Region considered to be at greatest risk are those living in big cities, mountain areas and water-stressed and coastal areas. In every country, regardless of the level of national wealth, people who are poor, very young, old or sick will be more at risk.

World Health Day 2008, dedicated to protecting health from climate change, provides an opportunity for everyone to place health at the centre of local, national and international dialogues, plans and actions related to climate change, by raising awareness of current and potential climate-related effects on health and highlighting the pivotal role that health systems can play in responding to this new challenge.

Critical in the years to come will be the capacity of health systems to develop and implement adaptation and mitigation strategies and to strengthen a range of key areas of work – from disease surveillance and control and research, to disaster risk reduction – that are essential elements of the capacity for rapid detection of and action to protect health from climate change.

Health systems also need to strengthen their stewardship functions and capacity to work with other sectors to promote policies beneficial for health, the environment and the economy directly and immediately. Savings from reduced health care costs of treating diseases related to climate change and lost productivity often match or exceed the costs of tackling the hazard itself.

By putting its evidence-based knowledge, credibility and capacity to advocate health with different actors at the service of action in national and international processes, the health sector can play an important, new and proactive role in protecting health from consequences of climate change. This publication addresses policy-makers in the health and other sectors at all levels of government. We at WHO hope that this summary of current knowledge on the links between health and climate-change-related events will help to identify opportunities to respond to this global challenge and to inspire action now.

Marc Danzon
WHO Regional Director for Europe



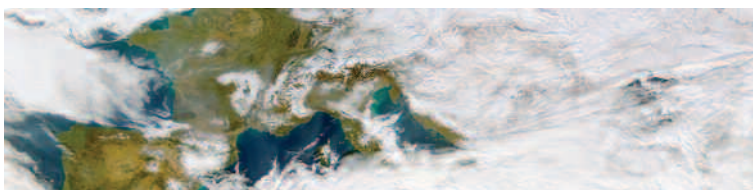
INTRODUCTION

There is now a strong, global scientific consensus that the climate is changing and that if current trends of global warming continue, rising temperatures and sea levels and more frequent extreme weather events (heat-waves, storms, floods, droughts, cyclones, etc.) could lead to severe shortages of food and water, loss of shelter and livelihoods, and extinction of plant and animal species (1). In its fourth assessment report, the United Nations Intergovernmental Panel on Climate Change (IPCC) concluded that globally:

The health status of millions of people is projected to be affected through, for example, increases in malnutrition; increased deaths, diseases and injury due to extremes; increased burden of diarrhoeal diseases; increased frequency of cardio-respiratory diseases due to higher concentrations of ground-level ozone in urban areas related to climate change; and the altered spatial distribution of some infectious diseases.

In the WHO European Region, many countries experienced major heat-waves, floods and droughts that have led to deaths and human suffering, social disruption and a substantial burden to health systems. Changes in the spatial distribution of some infectious disease vectors and changes in pollen seasonality have been observed (2). Evidence is growing that some weather events will become more frequent, more widespread and/or more intense during the 21st century, and that further increase in temperature, changes in precipitation patterns and sea level rise are expected (1). These changes will affect socioeconomic development, affect ecosystems, food production, water, agriculture and settlements (1).

European populations are directly exposed to climate change through changing weather patterns and indirectly through changes in water, air, food quality and quantity, ecosystems, agriculture, livelihoods and infrastructure (2). These direct and indirect exposures can result in a variety of health impacts, as outlined in Fig. 1. Climate change is challenging health systems across the Region to address its immediate health consequences (adaptation), as well as to identify, advocate and implement effective mitigation strategies.¹



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