



World Health
Organization

REGIONAL OFFICE FOR Europe

CLIMATE CHANGE AND HEALTH: A TOOL TO ESTIMATE HEALTH AND ADAPTATION COSTS





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ABSTRACT

The WHO Regional Office for Europe prepared this economic analysis tool to support health adaptation planning in European Member States. It is based on a review of the science. It is expected to be applied in Member States mainly by line ministries responsible for climate change adaptation. It provides step-by-step guidance on estimating (a) the costs associated with damage to health due to climate change, (b) the costs for adaptation in various sectors to protect health from climate change and (c) the efficiency of adaptation measures, i.e. the cost of adaptation versus the expected returns, or averted health costs. The tool consists of a document describing the methods step-by-step and a manual with an Excel spreadsheet, which is a visual aid for calculating costs. To obtain the Excel spreadsheet, please send an e-mail to climatechange@ecmhbonn.euro.who.int.

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Abbreviations

DALY	disability-adjusted life-year
GDP	gross domestic product
LCU	local currency unit
M&E	monitoring and evaluation
SWOT	strengths, weaknesses, opportunities and threats
UNFCCC	United Nations Framework Convention on Climate Change
VSL	value of a statistical life
YLL	years of life lost
YLD	years lived with disability

Foreword

Climate change is affecting human health. Its effect—largely negative—has been observed in several countries of the WHO European Region throughout the last few decades, continues today and is projected to worsen under probable climate scenarios. In order to cope with this emerging threat, authorities must evaluate current impacts and the vulnerability of their health systems and then prepare and implement adequate adaptation measures.

The best available evidence should be used in planning adaptation to protect health from climate change. In the context of limited public resources and competing priorities, the evidence should include estimates of the costs and benefits of taking action and the economic consequences of not doing so. The economic toolkit in this document will assist decision-makers in making such evaluations by providing explicit economic costs of the health impacts of climate change and the planned costs of adaptation.

The WHO Regional Office for Europe prepared this economic analysis tool to support health adaptation planning in Member States. It is based on a review of the science, with substantive input from several experts in the field. It is expected to be applied in Member States mainly by line ministries responsible for climate change adaptation. It will enable analysts at both regional and country level to generate better, more standardized economic data, help build vital capacity for health economic assessments and provide a link to decision-makers. The health impacts of climate change not only cause suffering but also entail avoidable economic costs. Adequate adaptation can reduce those costs and even bring additional economic benefits through hitherto unrealized opportunities. Economic data can help decision-makers to stress the benefits of adaptation, strengthening the case for early action against climate change.

This tool will support the efforts of WHO Member States to meet the commitment to act made at the Fifth Ministerial Conference on Environment and Health, act on World Health Assembly resolution WHA62.19 and implement the United Nations Framework Convention on Climate Change (UNFCCC).

Srđan Matić

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Division of Communicable Diseases,
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