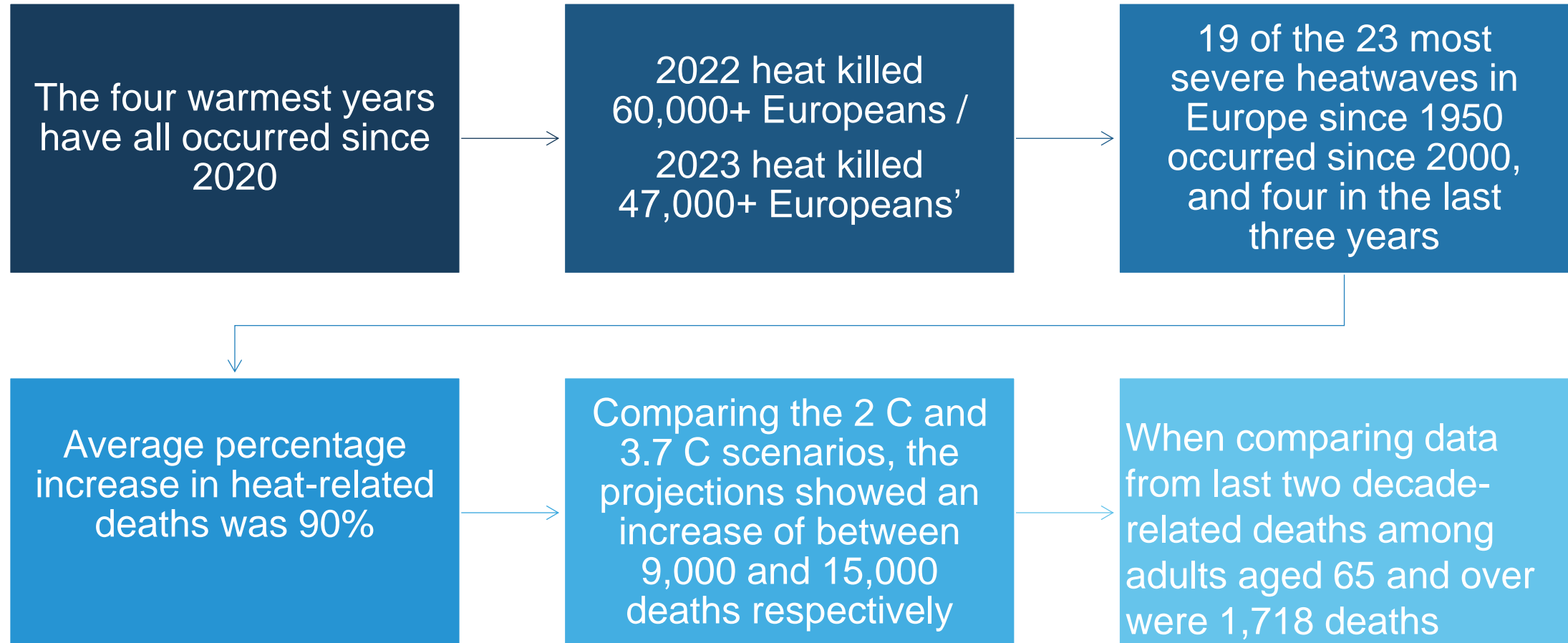


Regional Initiatives for Early Warning Systems including Heat Risk



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WHO European Centre for Environment and Health
Bonn, Germany

IN THE WHO EUROPEAN REGION



HIGHER, FURTHER, HOTTER



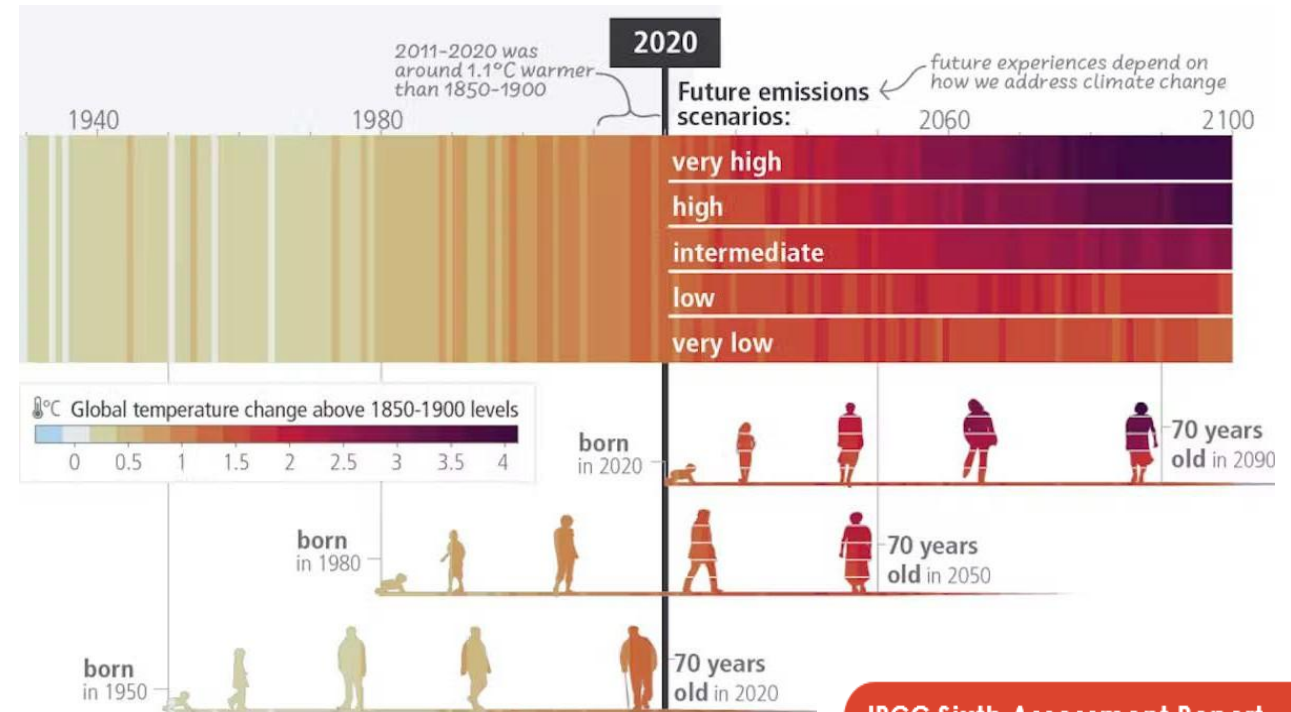
Climate change is projected to significantly increase population exposure to heat-related morbidity and mortality.
(HIGH CONFIDENCE)



Heat is a growing health risk due to burgeoning urbanization.
(VERY HIGH CONFIDENCE)



Strong geographical differences in heat-related mortality are projected to emerge later this century.
(VERY HIGH CONFIDENCE)



IPCC Sixth Assessment Report

European temperature increases more than 2x the global average and is projected to increase by +2.5°C to +7°C by 2100

HEAT IS AN ALL-OF-SOCIETY PROBLEM

Heat is an all-of-society problem



PEOPLE

Heat exacerbates risks of:

Social inequity,
Illness and death

Requiring action from:

Public health;
labour; social
sectors; physiology;
medicine; sports;
etc.



ENVIRONMENT

Heat exacerbates risks of:

Fires; poor air quality;
water scarcity and
drought; cyclones;
UV radiation

Requiring action from:

Environment;
meteorology;
climatology; etc.



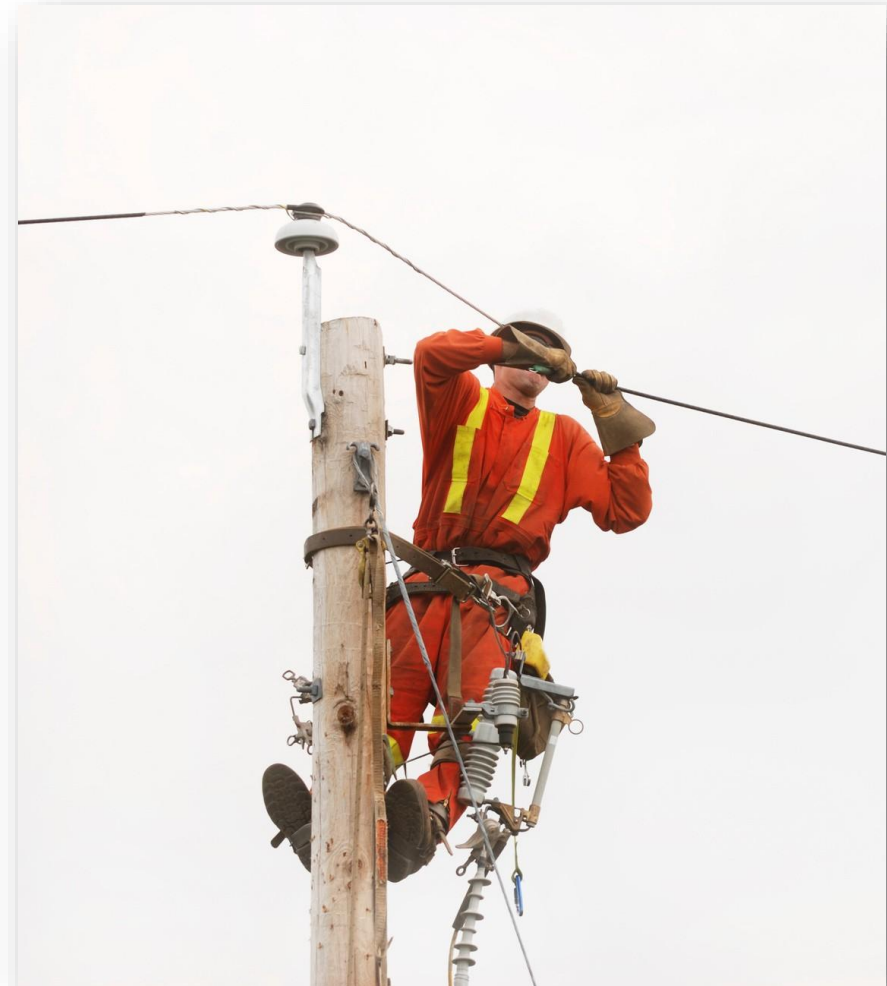
INFRASTRUCTURE

Heat exacerbates risks of:

Urban heat islands;
emergency and power
service disruptions;
poor quality housing

Requiring action from:

Architecture,
engineering,
urban planning; etc.



HARNESSING CLIMATE PREDICTION AND WARNINGS

Public awareness: individuals do not perceive themselves at risk and do not see the need for warnings

Impact-based forecasts and warnings should be tied to emergency and health services

Heat Health Action Plans should integrate preparedness and response across government levels and sectors

Climate policies should trigger heat-health action

Housing Policy

‘I Don’t Want to Go Home.’ Europe’s Housing Is Not Heat-Ready

Millions of people on the world’s fastest-warming continent live in houses and apartments ill-equipped for rising temperatures.

Energy and Economic Policy

Paris 2024: The touchy subject of air conditioning in the Olympic Village

The organizers have opted for rooms without air conditioning for environmental purposes, but the increasing number of heat waves in France has led to fears of recovery problems for the athletes.

Labor Policy

Spain to ban some outdoor working during extreme heat conditions

Reuters


May 10, 2023 3:42 PM GMT+2 · Updated 6 months ago



Mandate in WHO/EUROPE


PUBLIC HEALTH EMERGENCY

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Heatwaves

[Overview](#) [Impact](#) [WHO response](#)


The WHO European Region is the fastest warming of the 6 WHO regions, with temperatures rising at around twice the global average rate. The 3 warmest years on record for the Region have all occurred since 2020, and the 10 warmest years have been since 2007.

Heat stress is the leading cause of climate-related death in the Region. Over the past 20 years, there has been a 30% increase in heat-related mortality, with heat-related deaths estimated to have increased in almost all of the countries of the Region where monitoring is in place. Over the past 30 years, the hours of heat-stress risk for physical activity have spread beyond the hottest parts of the day. This shift may result in a reduction in overall physical activity, which in turn may increase the risk of noncommunicable diseases.


The frequency, intensity and duration of heatwaves, as well as other extreme weather events, are all expected to increase in the coming decades. This makes it even more important for individuals and communities to understand the risks and how to be prepared, and for health systems and societies to adapt to the changing climate.

[Fact sheets](#)
[Technical work](#)


Multimedia [All](#) →



5 May 2021
#KeepCool in the heat: Body




5 May 2021
#KeepCool in the heat: At home




4 May 2021
#KeepCool in the heat: Outside


Publications [All](#) →



8 February 2021
Heat and health in the WHO European Region: updated evidence for effective prevention




1 October 2011
Public health advice on preventing health effects of heat: new and updated information for different...



1 October 2008
Heat-health action plans: guidance

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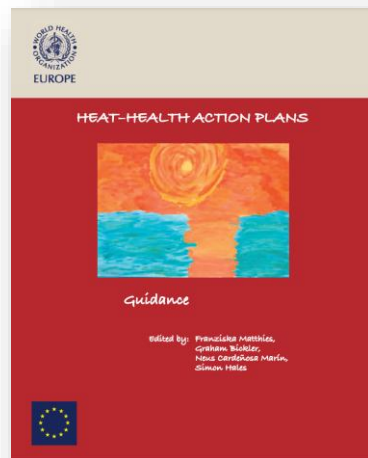
Climate crisis: extreme weather

CLIMATE & HEALTH IN THE BUDAPEST DECLARATION

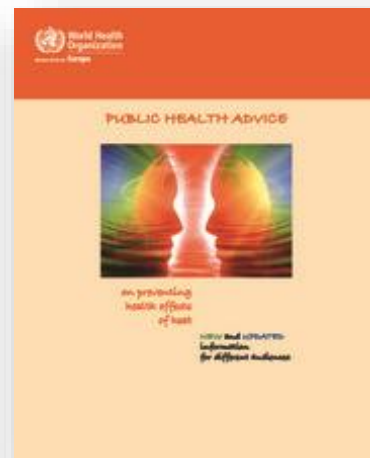


1. Making **health systems and facilities** climate-resilient, environmentally sustainable, and decarbonized
2. Establishing **health-centred targets** in national planning, in particular in the National Determined Contributions
3. Developing, updating, and implementing **Health National Adaptation Plans**
4. Developing and updating **heat-health action plans**
5. Establishing requirements to ensure the climate resilience of **water and sanitation** services
6. Strengthening **natural disaster** risk reduction policies and climate-informed health **early-warning and surveillance** systems
7. Strengthening the **climate-literacy of health professionals**

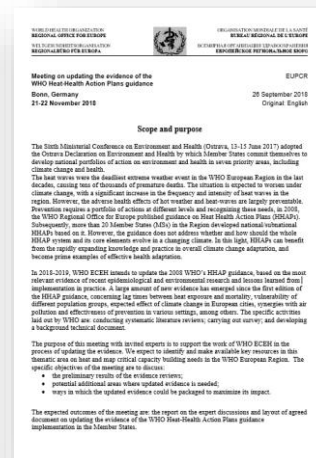
HHAP PROCESS IN WHO/EUROPE



2008



2011



2018

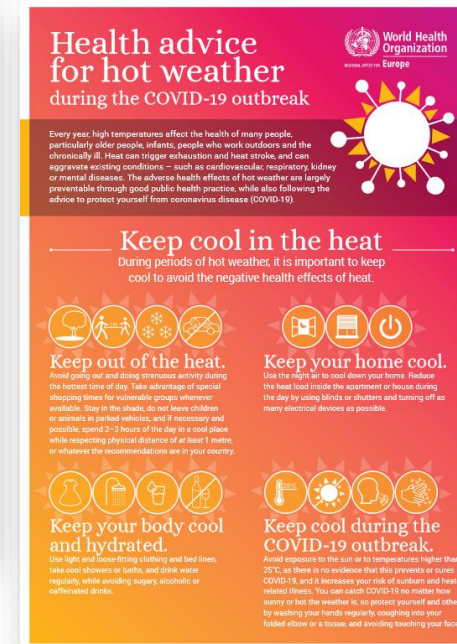


2021



2023-2026

COMMUNICATION



EVIDENCE REVIEW



- Most comprehensive evidence review on HHAPs to date
- Over 600 scientific sources, both conventional peer-reviewed and governmental
- Expert group-steered, fully peer-reviewed
- Comprehensive WHO/Europe national and local HHAP country survey
- Organized around the 8 core elements of the WHO 2008 HHAP guidance

Countries with HHAP

Austria	Netherlands
Belgium	North Macedonia
Croatia	Portugal
France	Spain
Germany	Sweden
Hungary	Switzerland
Italy	Tajikistan
Lithuania	Turkmenistan
Luxembourg	United Kingdom
Malta	

Implementations of core elements

HHAP Core Element	Core element fully implemented	Core element partially implemented
Agreement on a lead body	65%	35%
Accurate and timely alert system	94%	6%
Heat-related health information plan	76%	24%
Strategies to reduce heat exposure	47%	53%
Particular care for vulnerable groups	65%	35%
Preparedness of health and social systems	41%	35%
Long-term urban planning	35%	35%
Real-time surveillance, M&E	24%	29%

Martinez, G. S., Kendrovski, V., Salazar, M. A., de'Donato, F., & Boeckmann, M. (2022). Heat-health action planning in the WHO European Region: Status and policy implications. *Environmental Research*, 214, 113709. <https://doi.org/10.1016/j.envres.2022.113709>

AIMS OF THE UPDATED SECOND EDITION

- Clarify structure of stakeholders involved in HHAP governance, including actors involved in overall adaptation
- Link communication on climate change and heat response
- Focus more on interventions to reduce heat exposure considering long-term perspectives and planning of care for vulnerable groups
- Strengthen preparedness of social and care systems for heat and to become fully integrated into overall health systems resilience work
- Emphasize modifications of the built environment to become a priority for intersectoral action for health

UPDATED CORE ELEMENTS

GOVERNANCE

ESTABLISH A GOVERNANCE
STRUCTURE FOR HEAT-HEALTH
ACTION

HEAT-HEALTH WARNING SYSTEM

IMPLEMENT AN ACCURATE AND
TIMELY WARNING SYSTEM FOR
ACTION

VULNERABLE POPULATIONS

ENSURE CARE FOR THOSE AT
RISK

COMMUNICATIONS

DEVELOP A HEAT-HEALTH
COMMUNICATIONS PLAN

HEALTH SYSTEM RESILIENCE

STRENGTHEN HEALTH SYSTEM
PREPAREDNESS AND RESPONSE

REDUCTION IN HEAT EXPOSURE

PROTECT PEOPLE FROM HEAT.

SURVEILLANCE

ESTABLISH TIMELY SURVEILLANCE
AND DETECTION
FOR HEAT-HEALTH
ACTION

MONITORING, EVALUATION AND LEARNING

ESTABLISH A PROCESS FOR REVIEW
AND IMPROVEMENT

UPDATED INFORMATION SHEETS

EDUCATION SECTOR

For school teachers and managers

Protecting school children from the health effects of hot weather and heatwaves.

GENERAL PUBLIC

For the general public and health authorities

Information on protecting health from vegetation fires during hot weather and heatwaves.

For the general public

Health advice during hot weather and heatwaves.

For the general public and care home managers

Reducing indoor temperatures during hot weather and heatwaves.

For the general public

Understanding hot weather and heatwaves and their effects on health (also for journalists).

RETIREMENT AND CARE SECTOR

For retirement and care home managers

Educating, counselling, and informing residents and families during hot weather and heatwaves.

HEALTH SECTOR

For health professionals

Adverse effects of medication during hot weather.

For health professionals and care providers

Educating, counselling, and informing patients and families during hot weather and heatwaves.

For health authorities, care home managers, and employers

Occupational safety during hot weather and heatwaves.

For health authorities, health professionals, and care providers

Risk factors for heat-related illness and mortality.

For health authorities and city planners

Interventions in the built environment for the protection of health from the effects of hot weather and heatwaves.



- More information at:
[Climate change EURO \(who.int\)](http://Climate%20change%20EURO%20(who.int))
- kendrovskiv@who.int