

Protecting health in Europe from climate change

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This presentation is done completely independently from the event organizer. I have no conflict of interest to declare with the topic presented

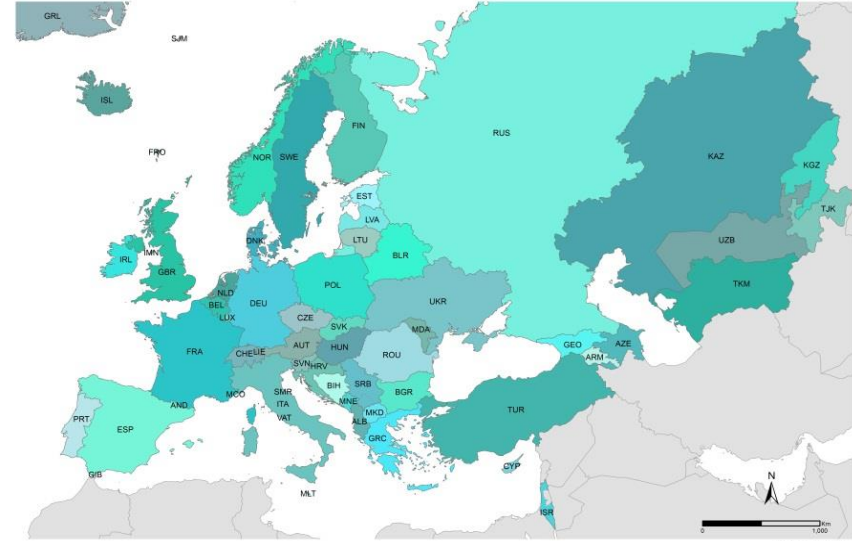
Who is WHO?

Who is WHO?

- Since 7 April 1948
- 7000 people working in 150 country offices
- 6 regional offices and headquarter in Geneva

Main areas of work:

- Health systems
- Promoting health through the life-course
- Noncommunicable diseases
- Communicable diseases
- Preparedness, surveillance and response.



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data source and map production:
Eurostat
Climate change, green health services and sustainable development (CCSD)
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"Health is a state of complete physical, mental and social well-being
and not merely the absence of disease or infirmity."

WHO Constitution

WHO European Centre for Environment and Health

Platz der Vereinten Nationen 1

D-53113 Bonn, Germany

- Centre of technical and scientific excellence on environmental and work-related impacts on health.
- Provide Member States with state-of-the-art evidence on existing and emerging environmental health risks.
- Develop policy advice and international guidelines, methods and tools to inform and support decision-making.
- Assist Member States in identifying and implementing policies to protect and promote health.



The global environmental burden of diseases

ENVIRONMENTAL IMPACTS ON HEALTH

WHAT IS THE BIG PICTURE?

FACT:

23%

of all global deaths are linked to the environment.

That's roughly **12.6 million deaths** a year.

WHERE IS IT HAPPENING?



People are exposed to risk factors in their homes, work places and communities through:



World Health Organization
#EnvironmentalHealth

Climate change is everybody's business

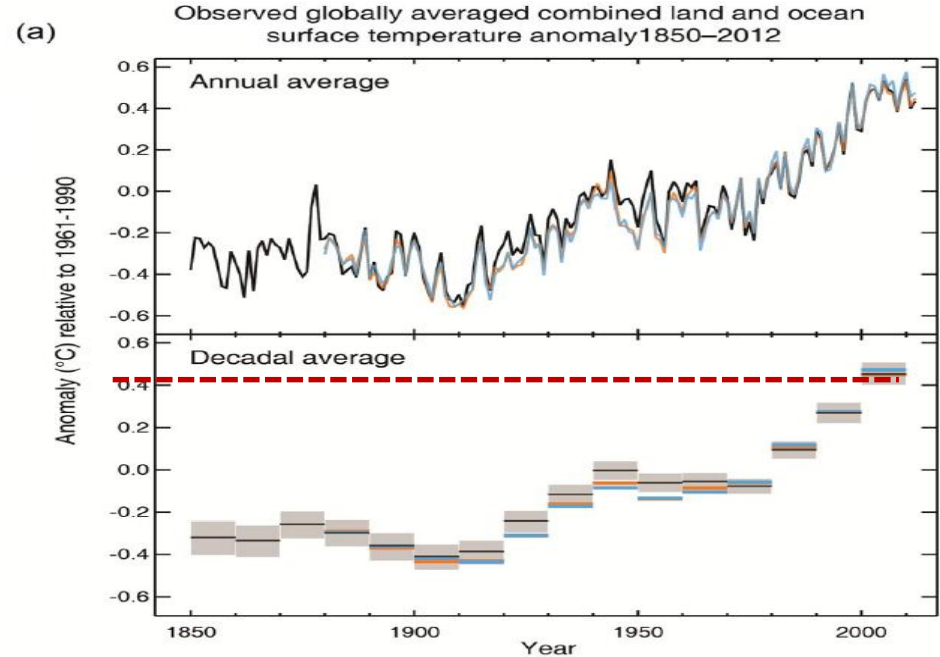
Climate change: definition

A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Source: United Nations Framework Convention on Climate Change (1992). United Nations (<http://unfccc.int/resource/docs/convkp/conveng.pdf>, accessed 19 November 2014).

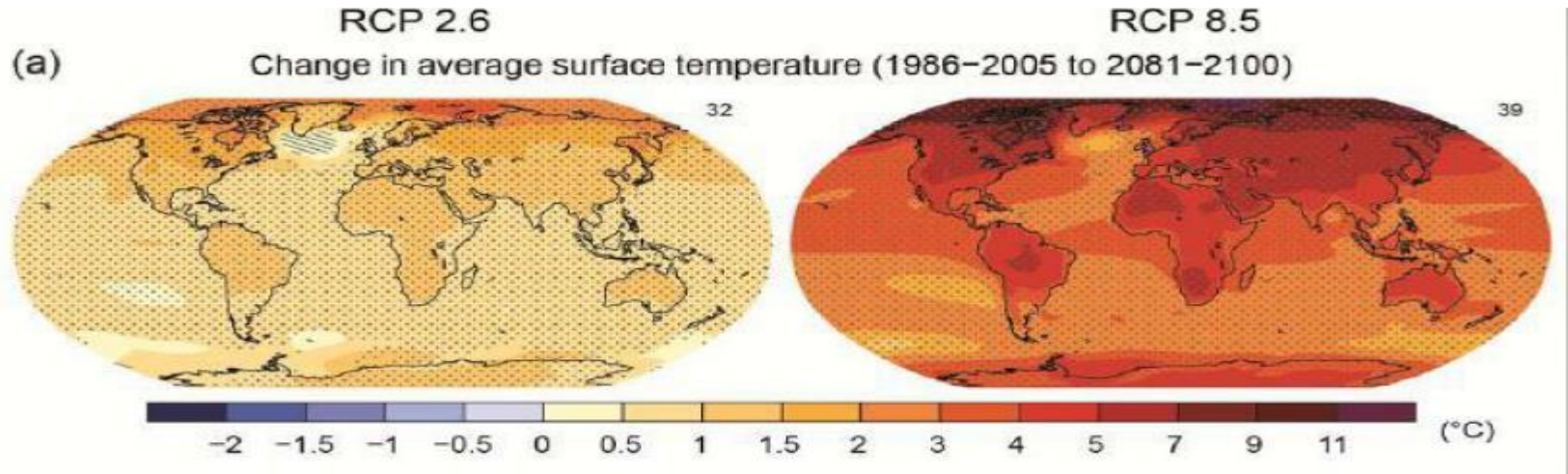
Global Temperature is Rising

- Temperature has increased by over 0.8°C since 1880.
- Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850



Source: IPCC (2013). Climate change 2013: the physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker TF, Qin D, Plattner G-K, Tignor MMB, Allen SK, Boschung J et al., editors]. Cambridge: Cambridge University Press.

Warming will continue



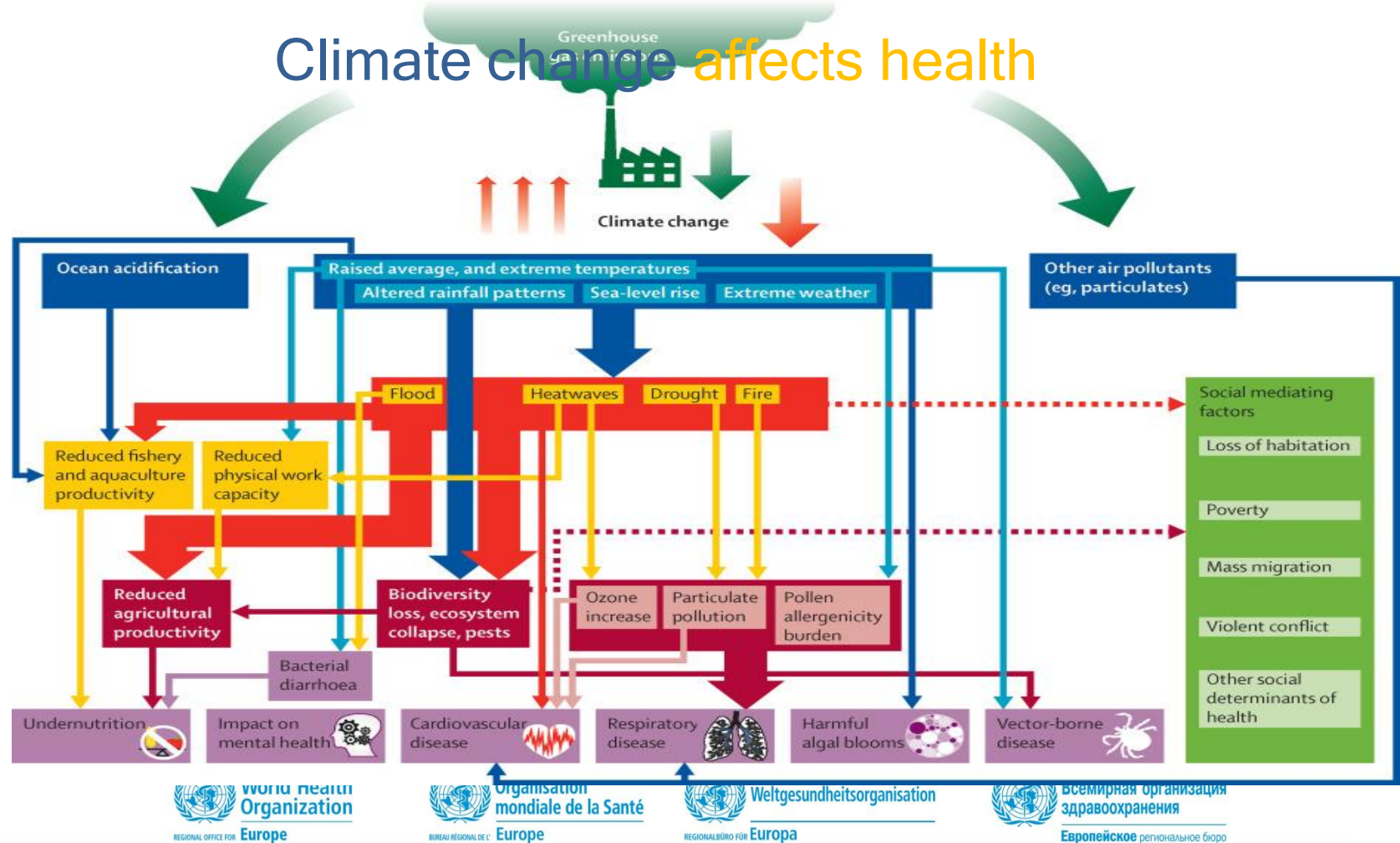
Global surface temperature change for the end of the 21 st century:

- is likely to exceed 1.5°C relative to 1850 to 1900 for almost all RCP scenarios

Source: IPCC (2013). Climate change 2013: the physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker TF, Qin D, Plattner G-K, Tignor MMB, Allen SK, Boschung J et al., editors].

Cambridge: Cambridge University Press.

Climate change affects health



What is familiar

Health is sensitive to shifts in weather patterns and other aspects of climate change

Climate change is already adding to the burden of disease and illness, world-wide

Most vulnerable are those whose health is most affected by the present day climate

Largest risks: under-nutrition, extreme weather events and infectious disease

What we know?

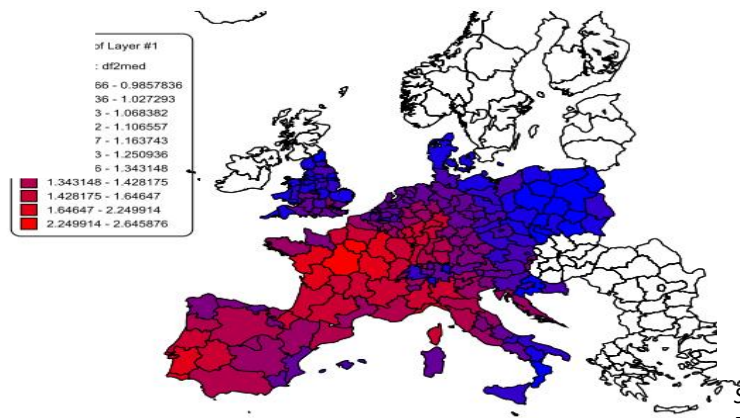
Number of deaths per million due to extreme weather events by European subareas (1991-2015)

	Flood and wet mass movement ^(a)	Cold event	Heat wave	Storm	Wildfire
Eastern Europe	3.55	29.02	11.69	1.82	0.56
Northern Europe	1.11	1.62	10.85	4.30	0.01
Southern Europe	10.50	1.50	177.52	1.78	1.30
Western Europe	2.80	0.87	187.68	3.81	0.17
Total	17.96	33.01	387.74	11.71	2.03

(a) including landslides

Note: Numbers are per 1000 000 people.

Heatwave: August 2003



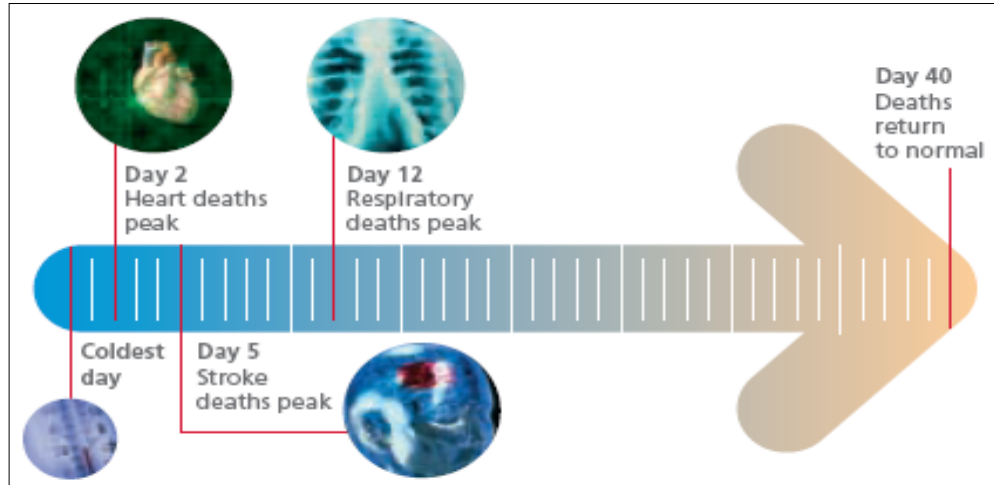
70,000 excess deaths
in 12 European
countries over three
months

Source: Robine JM, Cheung SL, Le Roy S, Van Oyen H, Herrmann FR (2007). Report on excess mortality in Europe during summer 2003 (EU Community Action Programme for Public Health). Brussels: Directorate General for Health and Consumer Protection, European Commission

Russia 2010:
1 month heat wave and fires
approx 11,000 excess deaths



Cold weather can have significant health effects

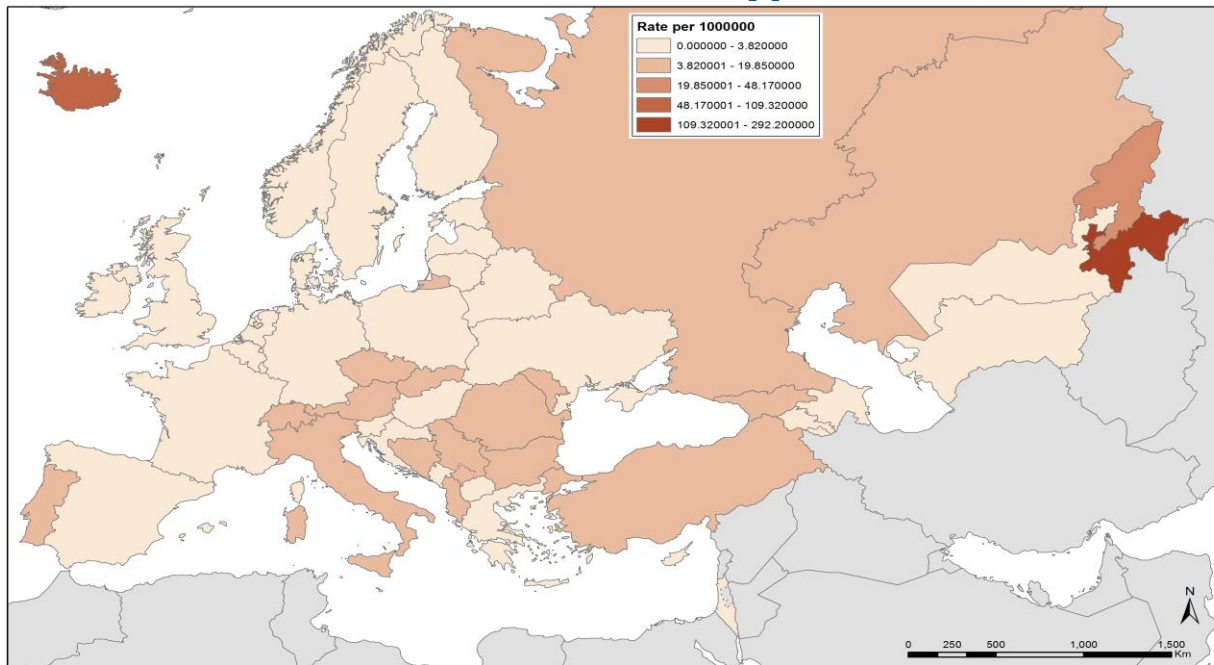


Every winter there are over 200 000 excess deaths across Europe and the increase in mortality is greater in the warmer Mediterranean area than in colder northern and central European countries

Although climate change is expected to result in a certain degree of warming, cold weather and cold wave events will still occur.

Source: WHO Regional Office for Europe (2013) Advocacy Tool on Extreme Weather, Climate Change and Health, Cold weather XXXXX, adapted from Donaldson and Keatinge, 1997.

Flooding and health



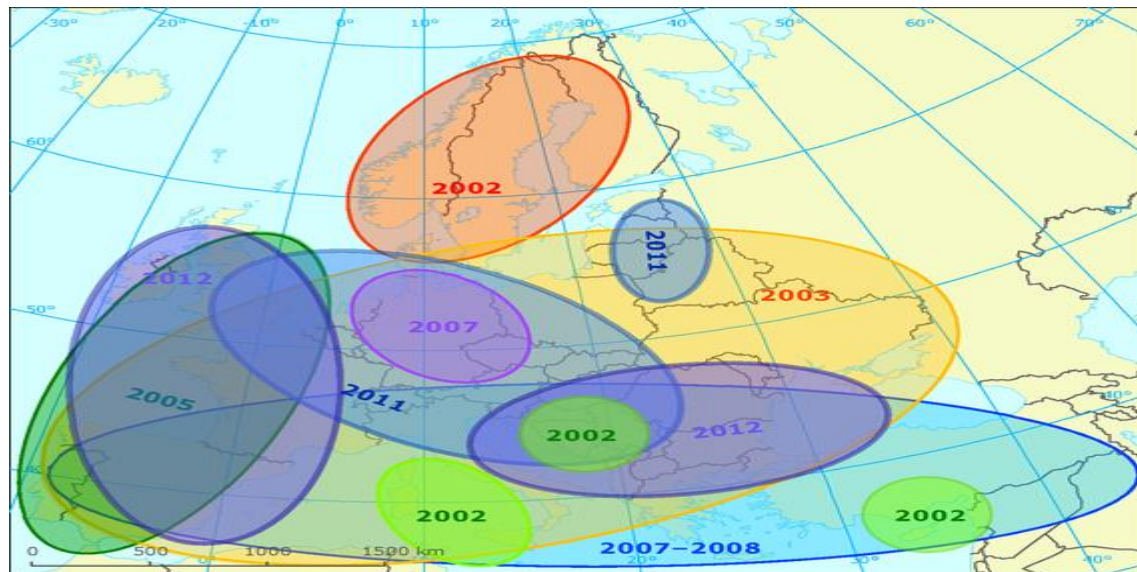
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Map production:
Cartography by Pierpaolo Mudu (WHO)
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Flooding is the most common natural disaster in the European Region. Estimates for the WHO European Region based on data from EM-DAT indicate that floods have killed more than 6500 people, affected 10 million others, and caused billions in losses in the period 1991–2015.

SOURCES: EM-DAT, 2017

Water scarcity and drought events in Europe during the last decade



Source: EEA (2012). Climate change, impacts and vulnerability in Europe 2012. Copenhagen: European Environment Agency (EEA Report No.12/2012; <http://www.eea.europa.eu/publications/climate-impacts-and-vulnerability-2012>, accessed 19 November 2014)

Examples of vector-borne diseases in the WHO European Region

Mosquito-borne

- Dengue fever
- Chikungunya
- Malaria
- West Nile fever

Sandfly-borne

- Leishmaniasis

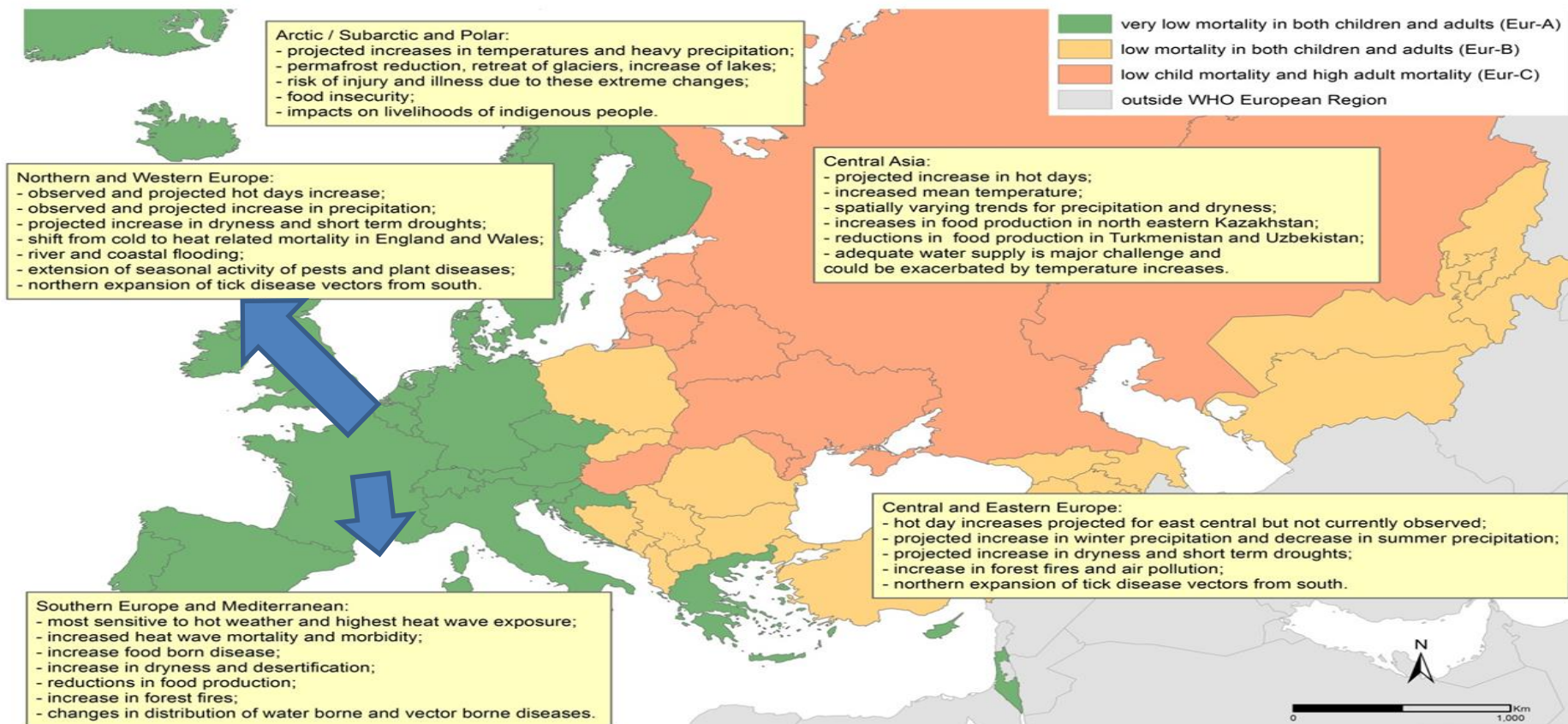
Tick-borne

- Lyme disease
- Tick-borne encephalitis (TBE)
- Crimean–Congo haemorrhagic

- 77 000 Europeans on average fall sick from vector-borne diseases every year.
- Mosquito species, such as *Aedes aegypti*, are re-emerging, and *Ae. albopictus* is emerging.

What can be expected?

High level of diversity

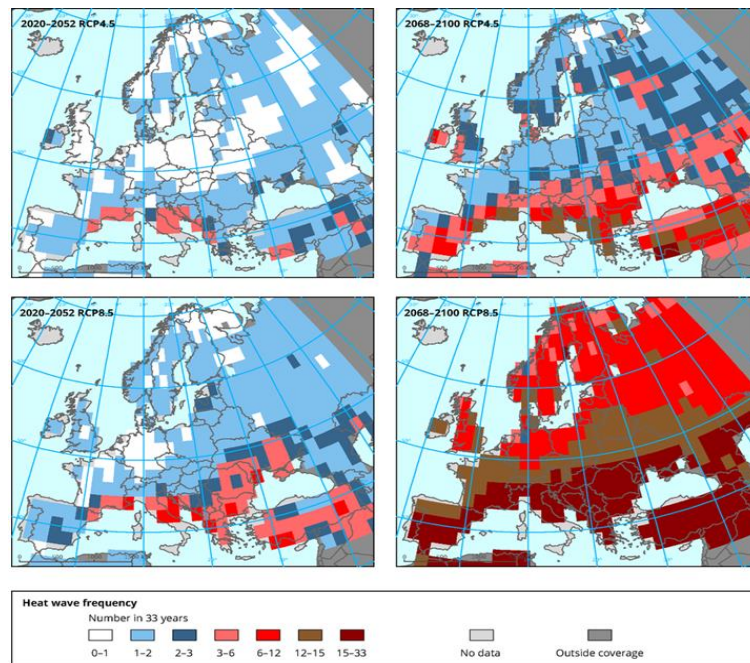


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Data Source and map production:
Compiled based on EEA and IPCC reports and the WHO mortality strata
Tanja Wolf, Climate change, green health services and sustainable development (CGS).
World Health Organization
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- No good news.....

- Under a high emissions scenario (RCP8.5), very extreme heat waves as strong as those or even stronger are projected to occur at least every three years in the second half of the 21st century.



The major increases in ill-health in the European Region will occur through

- Expected further impacts of extreme weather events on health
- Disruption and stress for health services
- Changing distributions of infectious diseases
- Changes in air quality, food and water quality and security
- Consequences for health of lost work capacity and reduced labor productivity

Within a changing climate, a health system should

- Recognize, monitor, anticipate, communicate, and prepare for changing climate related health risks, drawing upon and using the full spectrum of available knowledge and resources
- Prevent, respond to, manage, and cope with uncertainty, adversity, and stress
- Innovatively adjust and adapt operations to changing risk conditions
- Recover from crisis and setbacks with minimal outside support
- Learn from experience and improve system capacity for future
- Lead sustainability

Two Broad Responses Adopted by the UNFCCC

Mitigation

Actions taken to cut net emissions of greenhouse gases to reduce climate change and to preserve and enhance GHG sinks and reservoirs



Adaptation

Actions taken to help cope with changing climate conditions and impacts



Source: UN CC Learn: Section 1: The International Climate Change Policy Framework
http://unccllearn.org/sites/www.unccllearn.org/files/images/infocus/module_2_introduction_to_the_international_legal_and_policy_framework_to_address_climate_change.pdf, accessed 11 February 2015



The Paris agreement as a public health treaty

- Sets ambitious limits to warming - Less than 2°C, aim for 1.5°C
- Obliges countries to make "Nationally Determined Contributions" to reduce carbon emissions and to increase resilience
- Commits to mobilizing US\$100 billion/year in climate financing

SDG 13 underlines that the task is being advanced under the UNFCCC in order to minimize the duplication of efforts and optimize finite resources.



Climate change and health in the European Ministerial Environment and Health Process



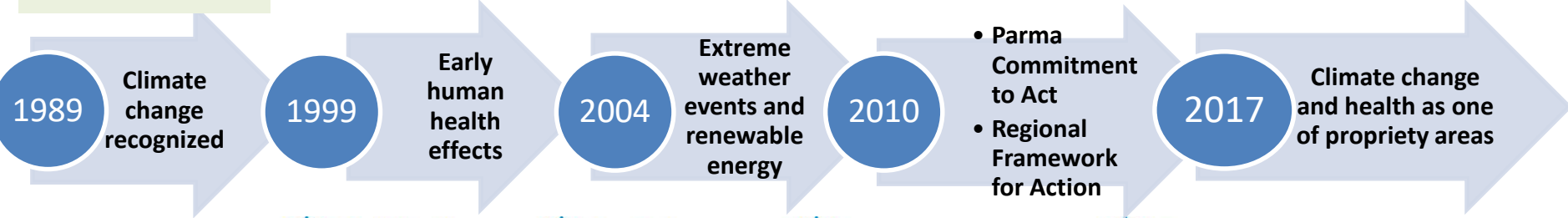
Frankfurt Charter
On Environment
and Health

London Declaration

Budapest Declaration

Parma Declaration

Ostrava Declaration




World Health Organization
REGIONAL OFFICE FOR Europe


Organisation mondiale de la Santé
BUREAU REGIONAL DE l'Europe


Weltgesundheitsorganisation
REGIONALBÜRO FÜR Europa


Всемирная организация здравоохранения
Европейское региональное бюро

Ostrava Public Health Priorities:

- Improve air quality for all;
- Ensure access to safe drinking-water, sanitation and hygiene for all;
- Minimize the adverse effects of chemicals;
- Prevent and eliminate the adverse effects of waste management and contaminated sites;
- **Strengthening adaptation to and mitigation of climate change;**
- Support cities and regions to become healthier;
- **Build the environmental sustainability of health systems.**



#ClimateChange

WHAT CAN WE DO ABOUT CLIMATE CHANGE?

We can do a lot to protect ourselves, our families, and future generations.

Our transport systems are inefficient, polluting and drive CO2 into the atmosphere, which directly harms the environment and our health.

The same can be said of our energy and food systems. The livestock sector is responsible for significant greenhouse gas emissions.

CLEAN ENERGY

Cleaner, more efficient energy choices will go a long way to reducing emissions.

SUSTAINABLE TRANSPORT

Instead, we should walk, cycle and use public transit. This will clean the air, increase physical activity, and reduce additional diseases like obesity.

SUSTAINABLE FOOD SYSTEMS & HEALTHY DIETS

Cutting down on red and processed meat and increasing fruit and vegetable intake in high-consuming populations will reduce emissions and diseases like cancer and heart disease.

Health and well-being are an outcome, a determinant and an enabler of the Goals.



HEALTH IN THE SDG ERA



World Health Organization

WWW.WHO.INT/SDGS



.....progress on all of these aspects of sustainable development will be undermined if the world is not successful in SDG 13, on 'Climate Action'.



WHO/ECEH supports European countries

- Elaboration and communication of scientific evidence, risks and how to reduce climate health risks;
- Awareness raising and education;
- Building institutional and workforce capacity;
- A public health approach to adaptation and mitigation;
- Mainstreaming health in other policies



WHO mandate:

- Resolution on Climate change and Health: WHA 61.19 in 2008
- Health 2020: the European policy for health and well-being
- Environment and Health Processes.... WHO Resolution EUR/RC67/R4



Merci beaucoup pour votre attention