

# HEALTH and CLIMATE CHANGE: Impacts and a framework for health protection

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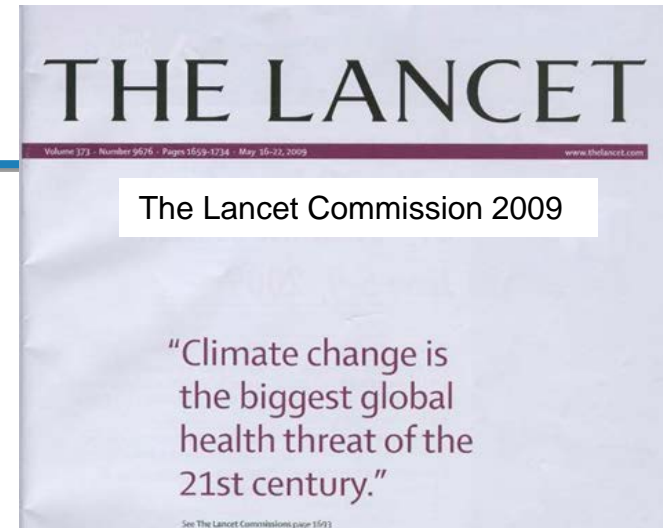
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World Health  
Organization

# 4 Key Messages

- Climate change is a serious threat to health – now and in the future
- Tackling climate change is a global health opportunity
- The global health community mobilized to respond to climate change
- Protecting health is a collective undertaking:
  - Mitigation is good for the planet and is very good for health
  - Adaptation within the health sector and within health supporting sectors



# The global public health community mobilized

**2014:** WHO 1<sup>st</sup> Global conference on health and climate change

**2016** WHO 2<sup>nd</sup> Global conference on health and climate change

**2016:** COP22 Ministerial Declaration on Health, Environment and Climate Change

**2017:** WHO current Director General elected. Climate change one of his 4 priorities

**2017:** COP23 WHO launched the SIDS Health and Climate Change Initiative.

**2018:** WHO 3<sup>rd</sup> Global Conference on health and climate change



## WHO's 4 priorities

- Health for all
- Health emergencies
- Women, children and adolescents
- The health effects of climate and environmental change

# TOP 10 CAUSES OF DEATH FROM THE ENVIRONMENT

23% of global deaths (12.8 M) is linked to modifiable environmental conditions



World Health Organization

#EnvironmentalHealth

# HOW THE ENVIRONMENT IMPACTS OUR HEALTH

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

**23%** of annual global deaths **(12.6 million deaths)** are linked to modifiable environmental conditions, all of which will be adversely impacted by climate change.

7 Million Deaths

**AIR POLLUTION**  
including indoors and outdoors

**INADEQUATE WATER, SANITATION**  
and hygiene

**CHEMICALS**  
and biological agents

**RADIATION**  
ultraviolet and ionizing

**COMMUNITY NOISE**

**OCCUPATIONAL RISKS**

**CLIMATE CHANGE**

**BUILT ENVIRONMENTS**  
including housing and roads

**AGRICULTURAL PRACTICES**  
including pesticide-use, waste-water reuse



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# WHETHER YOU LIVE IN A...



## CLIMATE CHANGE THREATENS YOUR HEALTH

**Drought, floods and heat waves** will increase.



**Vector-borne diseases**, like malaria and dengue virus will increase with more humidity and heat.

### Basic necessities will be disrupted...



#### FOOD

Hunger and famine will increase as food production is destabilised by drought.



#### AIR

Pollution and pollen seasons will increase leading to more allergies and asthma.



#### WATER

Warmer waters and flooding will increase exposures to diseases in drinking and recreational waters.

**23%** of annual global deaths (**12.6 million deaths**) are linked to modifiable environmental conditions, all of which will be adversely impacted by climate change.



# WHO IS AT RISK OF CLIMATE CHANGE?

Those **living in poverty**, as well as **women, children and the elderly**.

**Outdoor workers** and people **living with chronic medical conditions**.

**Children are the most vulnerable** due to long exposure to environmental risks.



**EVERYONE**  
**EVERYWHERE**

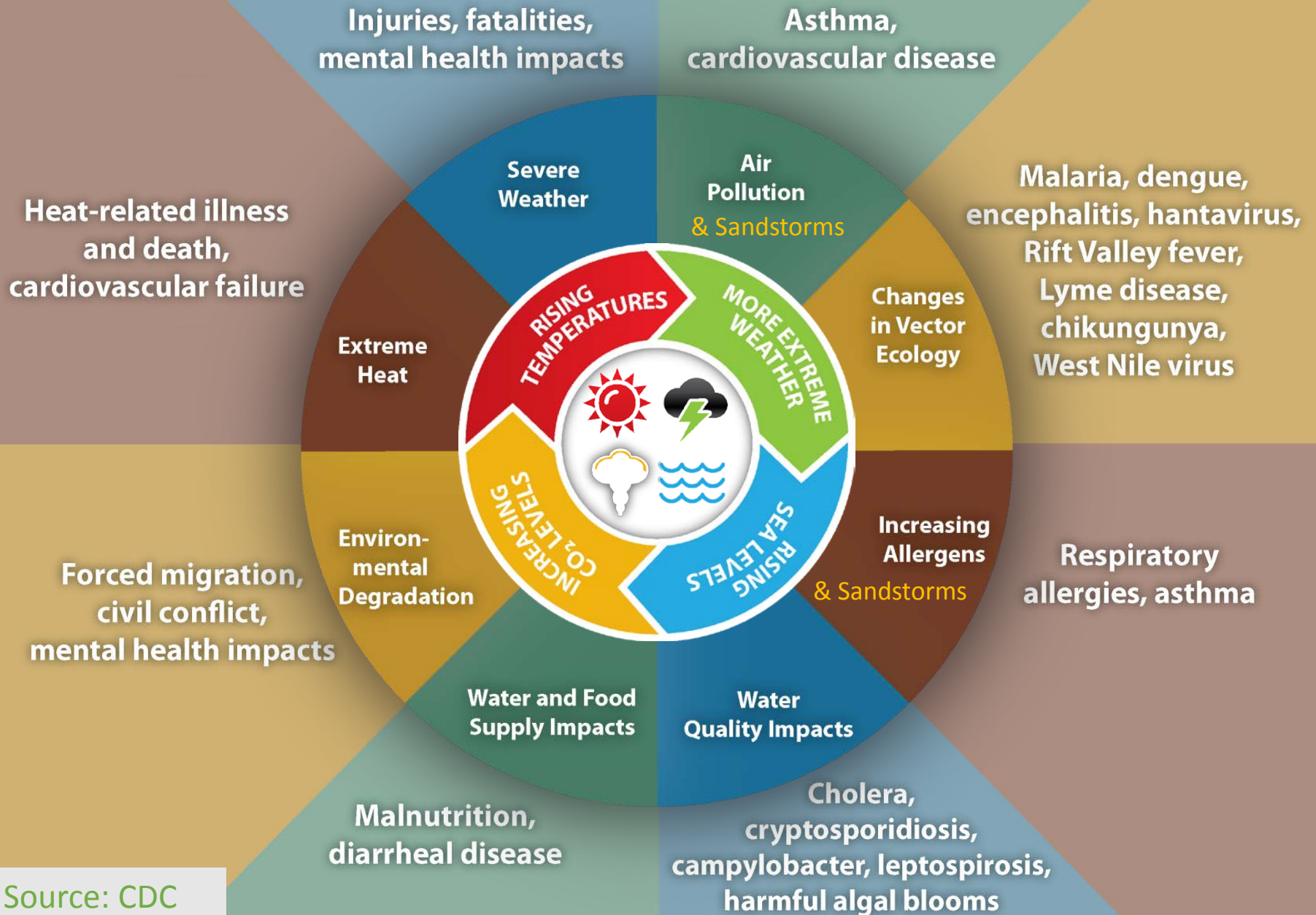
Those living in **megacities, small island developing states** and other **coastal, mountainous and polar regions**.

Countries with **weak health systems** will be least able to prepare and respond.





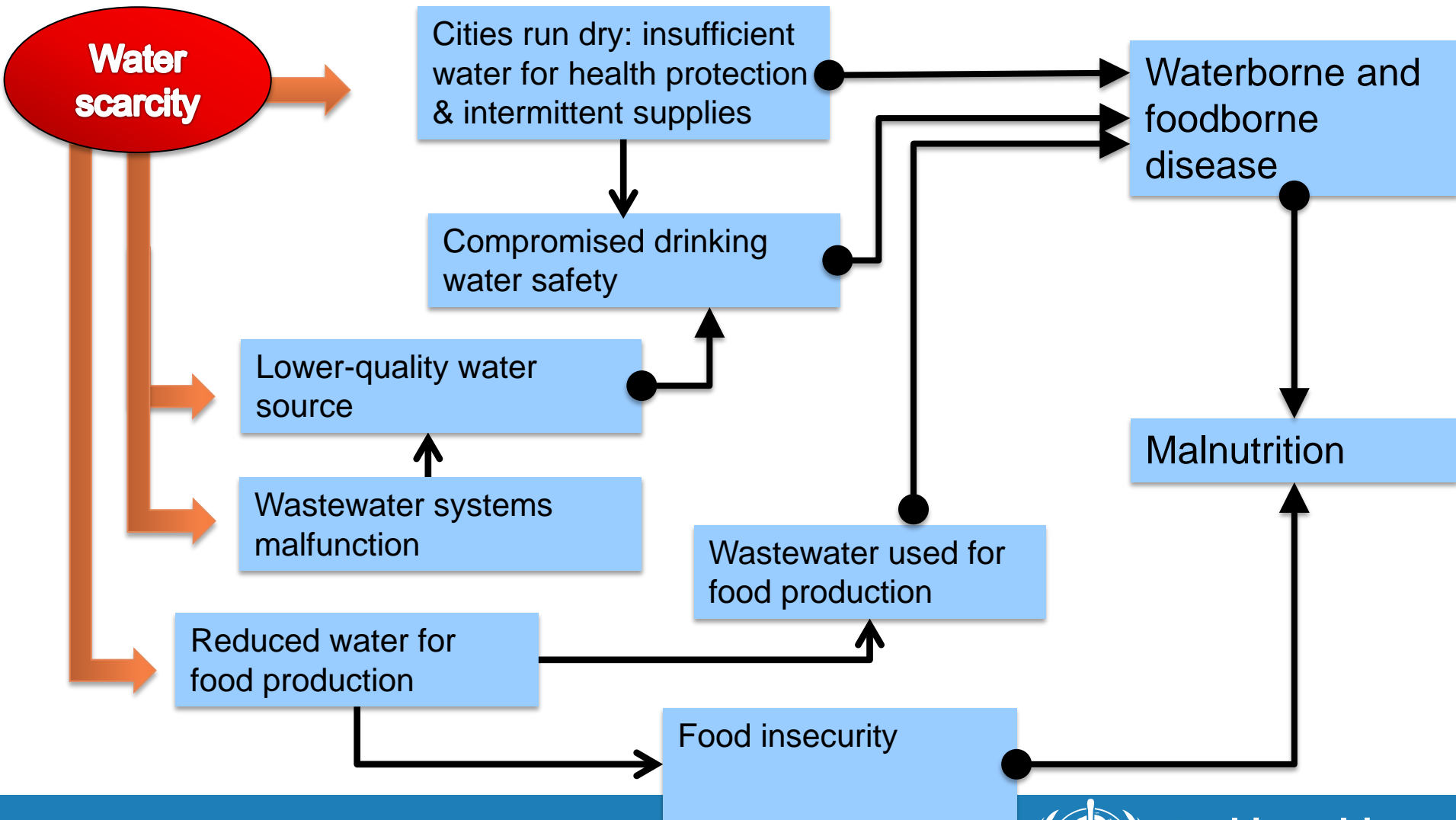
# Impact of Climate Change on Human Health



Source: CDC



# Health, climate change, and water scarcity



# Floods & Dust Storms in the Mediterranean

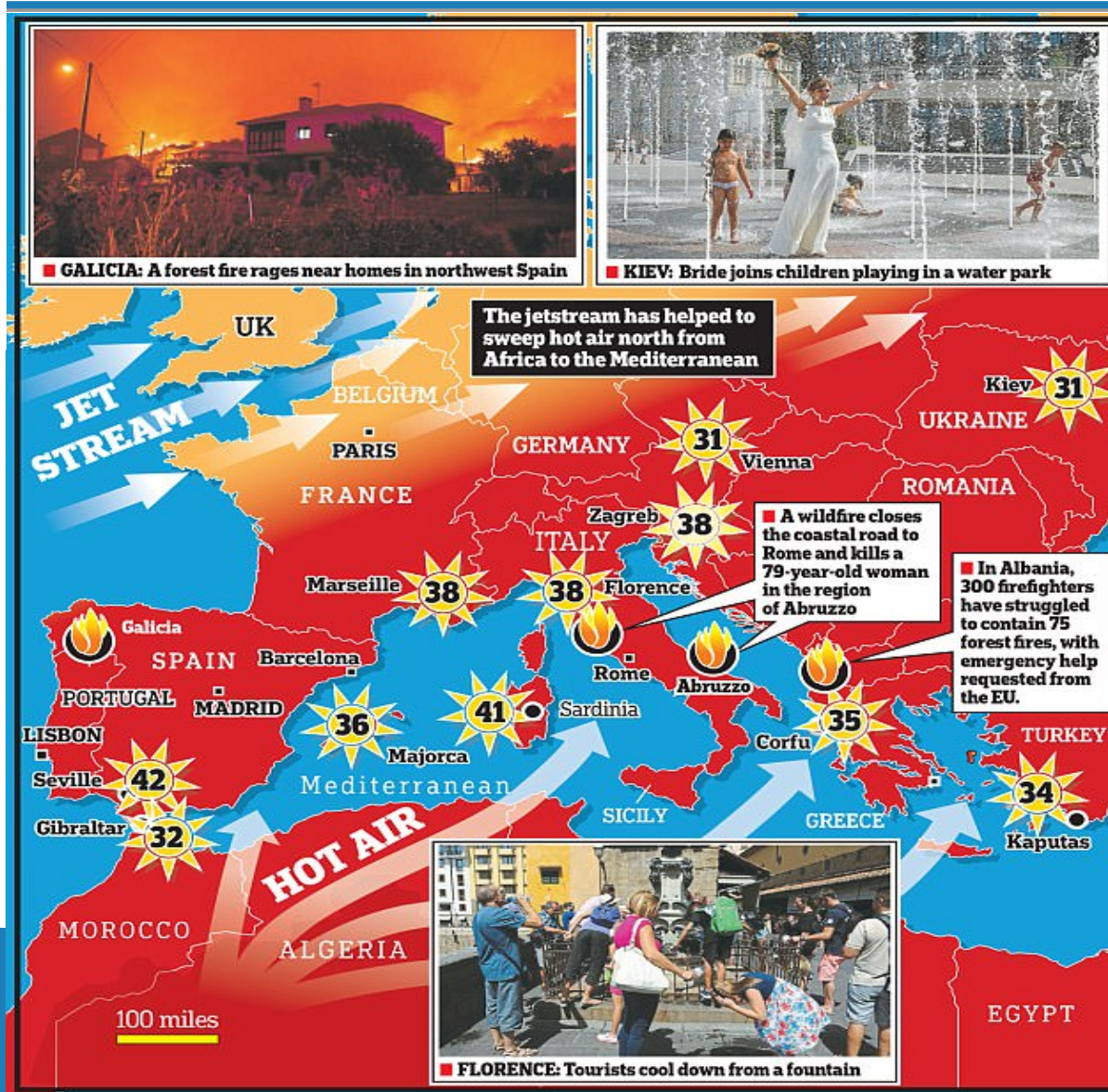


## Dust Storms

- More frequent
- Longer duration
- More intense

# Heat Waves

- More frequent.
- Last longer.
- More extreme





# Vector-borne diseases in the Mediterranean

## Mosquito-borne

- Dengue fever
- Chikungunya
- Malaria
- West Nile fever (WNF)



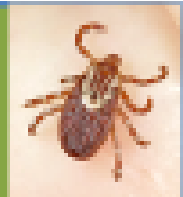
## Sandfly-borne

- Leishmaniasis



## Tick-borne

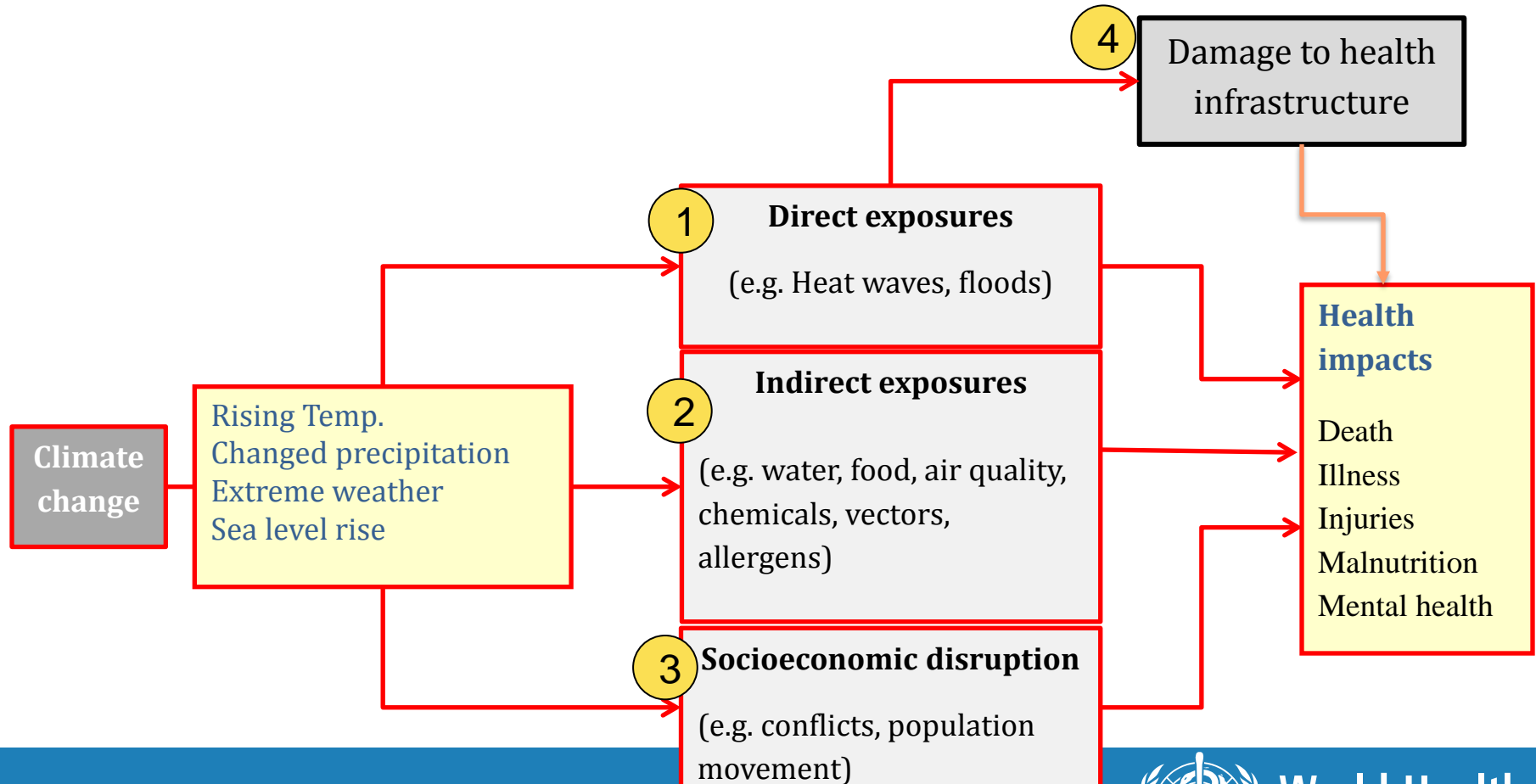
- Lyme disease
- Tick-borne encephalitis (TBE)
- Crimean–Congo haemorrhagic fever



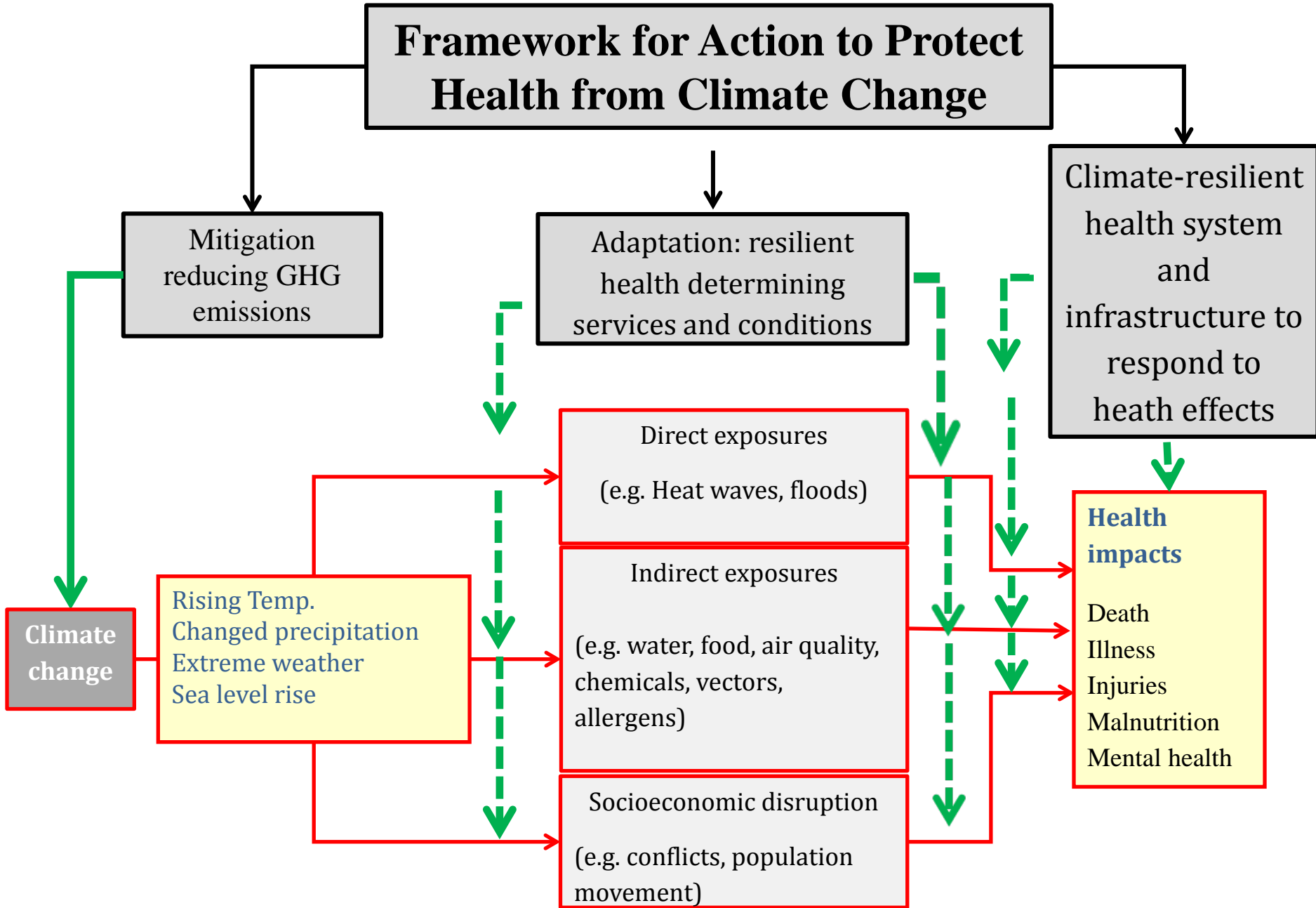
- 77 000 Europeans on average fall sick from vector-borne diseases every year.
- Mosquito species, such as *Aedes aegypti*, are re-emerging, and *Ae. albopictus* is emerging.
- Source: WHO/EURO/ECEH



# Climate Change and Health: Pathways



# Framework for Action to Protect Health from Climate Change



----- Adaptation to interrupt the exposure and reduce vulnerability of health      ——— Mitigation to curb climate change emissions



# WHAT CAN WE DO ABOUT CLIMATE CHANGE?

## Clean air is good for health

**Our transport systems are inefficient, polluting and drive CO<sub>2</sub> 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

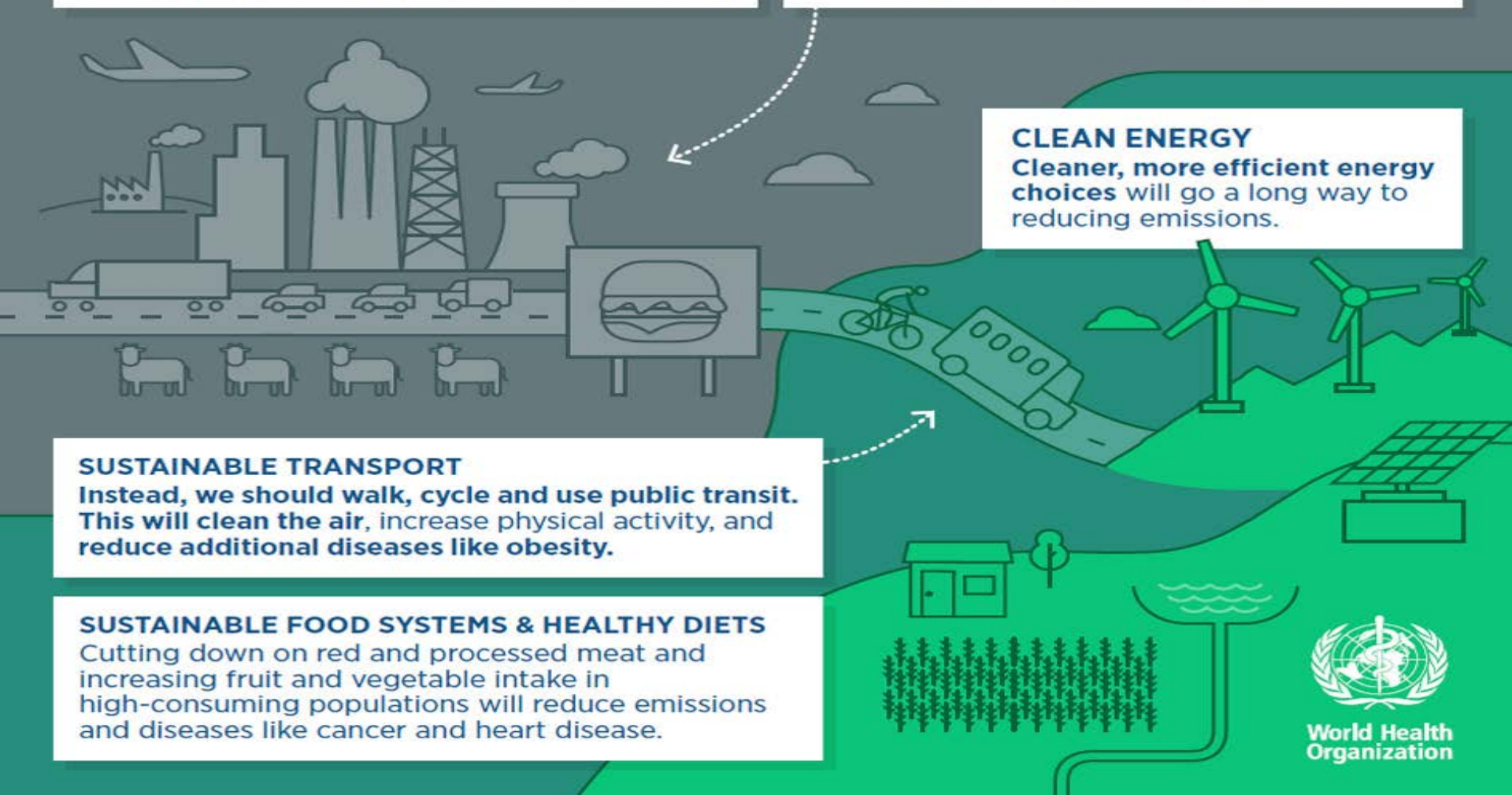
**Cleaner, more efficient energy choices will go a long way to reducing emissions.**

### 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 systems can lead by example! Reduce its contribution to GHG.



## Global Green and Healthy Hospitals | Agenda Goals



### Leadership

Prioritize environmental health as a strategic imperative



### Chemicals

Substitute harmful chemicals with safer alternatives



### Waste

Reduce, treat and safely dispose of healthcare waste



### Energy

Implement energy efficiency and clean, renewable energy generation.



### Water

Reduce hospital water consumption and supply potable water



### Transportation

Improve transportation strategies for patients and staff



### Food

Purchase and serve sustainably grown, healthy food



### Pharmaceuticals

Prescribe appropriately, safely manage and properly dispose of pharmaceuticals



### Buildings

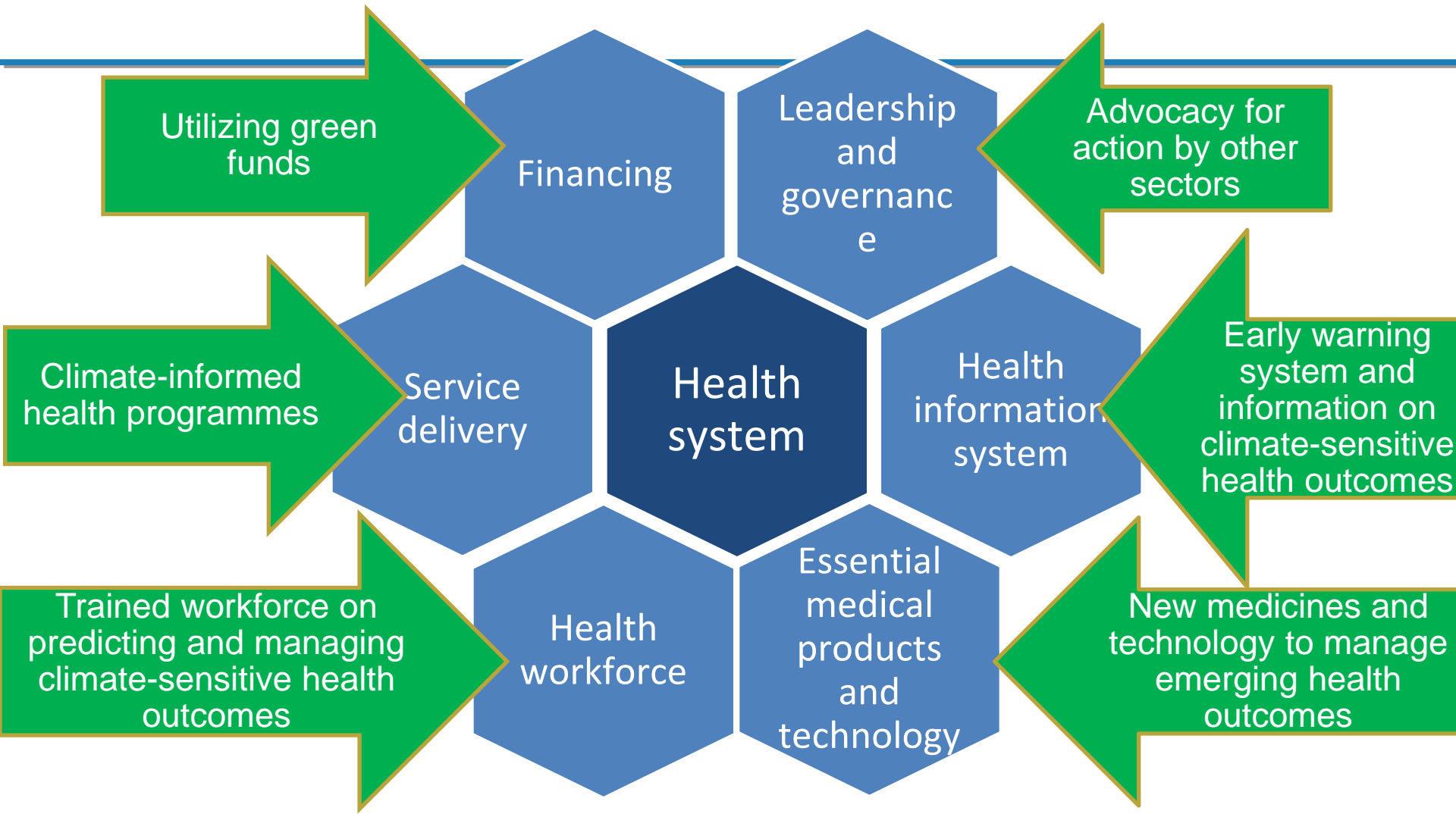
Support green and healthy hospital design and construction



### Purchasing

Buy safer and more sustainable products and materials

# Climate-resilient health systems





# Turn the climate challenge into a health opportunity by building resilience within the health supporting sectors-





Thank you      شكرا

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