ZERO REGRETS
Scaling up action on climate change mitigation and adaptation for health in the WHO European Region
Second edition

Key messages from the Working Group on Health in Climate Change
ABSTRACT

The imperative to protect and improve the health of current and future generations is one of the strongest arguments for action on climate change and sustainable development. This paper emphasizes the importance of taking proactive measures by the Member States in the WHO European Region to address climate change and its impact on human health, without incurring regrets in the future for missed opportunities. It encourages implementation of strategies that not only reduce greenhouse gas emissions but also enhance resilience and preparedness in health-care systems, promoting sustainable and healthy communities. The paper aims to provide a backdrop and to support uptake and implementation of the climate change and health-related commitments put forward by Member States at the Seventh Ministerial Conference on Environment and Health in Budapest, Hungary, on 5–7 July 2023, and the health messaging during upcoming engagements on climate change and health.

KEYWORDS

CLIMATE CHANGE
ENVIRONMENT AND PUBLIC HEALTH
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About this paper

The imperative to protect and improve the health of current and future generations is one of the strongest arguments for action on climate change and sustainable development.

Climate change is already affecting lives and livelihoods worldwide – especially of vulnerable populations – and undermining the “right to health”. Without significant action to mitigate and adapt to climate change, substantial increases in preventable morbidity and mortality, adverse impacts on quality of life, and widening equity gaps can be expected over the coming decades and beyond. Decarbonized, clean-energy economies – including the health-care sector – will realize significant direct and near-term health co-benefits. The evidence is compelling, offering strong arguments for transformative change towards creating sustainable “well-being societies” that are committed to achieving equitable health now and for future generations without breaching ecological limits (1–6).

During the 26th United Nations Climate Change Conference (COP26) on 31 October to 12 November 2021 in Glasgow, United Kingdom, the health community reached an important milestone by bringing human health to the forefront of climate change action. This involved a dedicated health programme and a call to action for the health and health-determining sectors to promote climate change mitigation and adaptation at the global, regional, national and local levels. The Alliance for Transformative Action on Climate Change and Health (ATACH) was born as a WHO-led mechanism to support the delivery of the commitments made at COP26 on climate-resilient and low-carbon or net zero health systems. It provides a global platform for coordination, knowledge and best practice exchange, networking and access to support, and links to existing initiatives (7–9).

The Working Group on Health in Climate Change (HIC Working Group), established under the European Environment and Health Process (10), published a first edition of this “Zero regrets” paper in 2021 (11). The paper emphasizes the importance of taking proactive measures to address climate change and its impact on human health, without incurring regrets in the future for missed opportunities. It encourages implementation of strategies that not only reduce greenhouse gas emissions but also enhance resilience and preparedness in health-care systems, promoting sustainable and healthy communities.

At its tenth meeting, held virtually on 11–12 October 2022 (12), the HIC Working Group agreed to produce a second updated edition of the “Zero regrets” paper, with the objective of articulating and consolidating an action-oriented health and climate change position for the WHO European Region. This edition aims to provide a backdrop and to support uptake and implementation of the climate change and health-related commitments put forward by Member States at the Seventh Ministerial Conference on Environment and Health in Budapest, Hungary, on 5–7 July 2023, and the health messaging during upcoming engagements on climate change and health, such as COP28 on 30 November–12 December 2023 in Dubai, United Arab Emirates.

The intended audience for this paper is policy-makers in the health sector and other sectors that influence health – including water, energy, transport, urban planning, food and agriculture – and civil society representatives. Its aim is to raise awareness about the links between health and climate change, and about the policy options that can maximize the benefits for health, the environment and biodiversity. It further aims to equip policy-makers with evidence and messages to support active engagement in national preparatory consultations for negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) process, and it indicates areas for action and collaboration across sectoral boundaries and between social actors. In this way, the paper also supports implementation of the WHO European Programme of Work 2020–2025 – “United Action for Better Health in Europe” (13), as well as other regional policies such as the European Climate Law and the Strategy on Adaptation to Climate Change of the European Union (EU) (14,15).
Climate change: a public health crisis

Climate change has emerged as one of the greatest global game-changers for humanity in the 21st century. Temperatures in the WHO European Region have increased significantly over the period 1961–2021, at an average rate of about 0.5 °C per decade. This change in the climate is resulting in severe damage to natural and social systems, which comes with large and far-reaching impacts on health and well-being (16).

Climate change threatens to undo the last 50 years of progress in public health, and to widen existing health inequalities between and within populations. It severely jeopardizes the attainment of universal health coverage in various ways – including by compounding the existing burden of disease and by exacerbating existing barriers to accessing health services, often at the times when they are most needed (17).

Leading climate-related causes of death, illness and suffering result from exposure to increasingly frequent and more intense extreme weather events, including heatwaves, wildfires, floods and storm surges, as well as slow-onset events, such as droughts (Fig. 1). Communicable diseases are exacerbated by extreme events and global warming, which alters the spread and transmission patterns of zoonoses and food-, water- and vector-borne infections. Nearly two thirds of human and domestic animal pathogens in the WHO European Region are climate-sensitive, and parts of the Region are prone to the expansion of vectors due to climate change (18,19).

Fig. 1. An overview of climate-sensitive health risks, their exposure pathways and vulnerability factors

Source: WHO (18).
Noncommunicable diseases – particularly respiratory and cardiovascular diseases – are also exacerbated by changing climate conditions (20). These can worsen existing medical conditions and increase the prevalence or severity of such diseases. The rapidly changing climate also poses a rising threat to mental health and psychosocial well-being, ranging from emotional distress to anxiety, depression, grief and suicidal behaviour (21). Climate change can further result in declining crop yields and reduced nutrient quality of crops through the effect of increasing atmospheric carbon dioxide, leading to food security challenges and increased malnutrition (22).

The effects of climate change on physical and mental health are mediated by people’s living conditions and their socioeconomic and geographical environments. Groups and communities that are particularly vulnerable and disproportionately affected by the impacts of climate change include young and old people, those on low incomes, people living in remote areas and indigenous populations (23). By mediating socioeconomic systems, climate change can threaten livelihoods, increase poverty, exacerbate socioeconomic and health inequalities, and lead to population displacement and migration (24).

In the last 50 years, the 1672 reported weather-related disasters in the WHO Europe Region led to about 160 000 deaths, with an estimated economic loss of US$ 477 billion. Floods (38%) and storms (32%) were the most-reported causes of disasters, but extreme temperatures led to the highest proportion of disaster-related deaths (93%) (25). The summer of 2022 was the Region’s hottest on record. Northern and western Europe were hit with prolonged, intense heatwaves. Many countries saw drought and wildfires as temperatures soared and rainfall was low. Crops suffered, rivers dried up, and more than 15 000 reported excess deaths were caused by the extreme heat (26). In July 2021 north-western Europe was exposed to devastating floods, primarily driven by heavy rainfall that was nine times more likely to happen because of climate change. These floods directly killed more than 200 people (27).

According to the Sixth Assessment Report (AR6) of Working Group II of the Intergovernmental Panel on Climate Change (IPCC), the world is facing climate risks that will intensify with each temperature rise of one tenth of a degree (22). A conservative projection by WHO from 2014, based on four health outcomes (malnutrition, malaria, diarrhoea and heat stress), estimates that approximately 250 000 deaths will occur globally each year owing to climate change in 2030–2050 (28). Other projections indicate over 9 million deaths per year attributed to climate change by 2100, focusing on heat-related deaths only (29,30). The health risks will be considerably higher without investment in strengthening and expanding current resilience, adaptation and mitigation policies globally.
Coordinated transformative efforts for a healthier future

Although it is a global public health challenge, the climate crisis also presents a driver and opportunity for positive and just societal transformations that support a greener and healthier future.

Accelerated mitigation, if delivered with health considerations at its heart, can result in significant health co-benefits in the short term. Millions of lives could be saved each year by fast-tracking the transition to cleaner fuels, healthier diets and active modes of travel (22,31).

In the WHO European Region alone, about 569 000 premature deaths in 2019 were attributable to the effects of ambient air pollution (32). In 27 EU countries, exposure above WHO-recommended levels to fine particulate matter (PM$_{2.5}$) is responsible for an estimated 238 000 premature deaths annually, and to nitrogen dioxide for 49 000 premature deaths (33). Shifting away from fossil fuels would contribute to preventing such deaths and air pollution-related diseases, as well as other negative health outcomes associated with indoor air pollution from the use of fuels in the home (20,31).

Healthy urban planning and design – focusing on the accessibility of safe active travel infrastructure, location of services and amenities in close proximity to residential areas and green spaces – can reduce fossil fuel use for road travel and air pollution. More green spaces can also reduce urban heat and ultraviolet radiation exposure, promote physical activity, facilitate social cohesion, and improve mental health (33–35).

Shifting food systems towards locally produced supplies with short supply chains and population-wide consumption of predominantly plant-based diets would reduce greenhouse gas emissions, land-use requirements, biodiversity loss, water demand and contamination, and other negative environmental impacts associated with unsustainable food production. Predominantly plant-based diets, such as those that align with the EAT-Lancet recommendations, typically contain fewer calories, less red and processed meat, a lower proportion of saturated fat, more fibre, and more portions of fruit and vegetables. In terms of health outcomes, the transition from current to sustainable diets is estimated to reduce premature mortality by 30%, mostly related to an increase in consumption of wholegrains, fruit and vegetables, a lower prevalence of obesity and a reduction in red and processed meat consumption (36–38). The average reduction in greenhouse gas emissions for meat-substituted diets, such as Mediterranean, pescatarian, vegetarian and vegan diets, was reported to be around 22%, while entirely plant-based (vegan) diets have the potential to achieve even higher reductions of up to 80% of greenhouse gas emissions (39).

However, to ensure that the major health co-benefits of climate change action are achieved, mitigation interventions need to be designed and implemented with health at their core. To this end, health professionals have a crucial role to play. As respected members of society, they can introduce the climate crisis into conversations, share knowledge, and champion policies that promote sustainable and healthy practices and reduce greenhouse gas emissions.

Health care contributes 4–5% of global greenhouse gas emissions (40). Health professionals can be institutional leaders who drive decarbonization and sustainability in hospitals by maximizing energy efficiency, reducing overdiagnosis and overtreatment in health care, improving waste management, streamlining services and moving towards greener procurement. All these efforts will make health care more sustainable and climate-friendly. By taking an active role in educating the public about the health impacts of climate change, promoting behaviours that reduce these impacts, and implementing sustainable practices, health professionals can help to build resilience within their own health-care facilities and the wider community, thereby supporting ambitious greenhouse gas emission reductions (41,42).
Multiple crises creating an accelerator for a joint way forward

Climate change, environmental pollution, biodiversity loss and the energy challenge are intertwined and converging global crises, which require integrated and cross-sectoral responses.

Climate change alters how humans relate to other species on Earth. Recent research suggests that it will be one of the biggest upstream risk factors for zoonotic disease emergence – in concert with other global drivers such as deforestation and industrial agriculture. These connections alter host–pathogen interactions and increase the risk of a “viral jump” from animals to humans. They could thus lead to future pandemics (43–45).

Climate change is one of the main global drivers of nature change and biodiversity loss, in concert with alterations in land and sea use, direct exploitation of organisms, environmental pollution and invasive alien species (36,46). Climate change is also a key factor in land-cover change, which is further fuelled by population growth and associated increased food demands, increasing consumerism and excessive livestock production – contributing to the loss of biodiversity and exacerbating the risks of pandemics (47). The 2023 Synthesis Report of the IPCC AR6 concludes that “climate change has caused substantial damages, and increasingly irreversible losses, in terrestrial, freshwater, cryospheric, and coastal and open ocean ecosystems” (48).

The overlapping health impacts of climate change and the pandemic have also been exacerbated by the devastating impacts of the war in Ukraine, which has aggravated global energy and food crises and added to environmental pollution, in addition to the enormous humanitarian toll (53). These emergencies underscore the urgent requirement for interventions to build health-sector resilience and to protect people from growing health hazards. The energy crisis also demonstrates the need to invest in energy efficiency and renewable sources, and to reduce energy demand, with the aim of creating healthier, resilient and self-sufficient energy systems that safeguard the climate, energy security and human health (4).

As countries emerge from the pandemic and implement recovery packages, there is a unique opportunity to build forward greener, more equitably and inclusively – integrating action on climate change within COVID-19 recovery plans and placing health, decarbonization and adaptation at the centre of a realigned policy agenda. The WHO Manifesto for a healthy recovery from COVID-19 offers six prescriptions in the areas of nature, food systems, infrastructure, energy, cities and pollution to support a green and sustainable recovery for all, alongside a long-term vision for enhanced public services and strengthening the resilience and response capacities of health systems (54).

To this end, the “Planetary Health” and “One Health” approaches provide valuable conceptual frameworks for addressing the intersection of health and climate change. The Planetary Health approach recognizes the undeniable link between human health and well-being and the health of the planet, while the One Health approach emphasizes the interconnectedness of human, animal and environmental health. They can help with formulating coordinated multisectoral responses to imminent crises, such as climate change and antimicrobial resistance (55–58).
A narrow window of opportunity and a need for urgent action at scale

The global mean temperature for 2022 was $1.15 \pm 0.13 \degree C$ above that of the pre-industrial baseline period. In the WHO European Region, temperatures have increased at more than twice the global average over the past 30 years – the highest of any WHO region. Even if current nationally determined contributions (NDCs) under the Paris Agreement were implemented unconditionally, the world is now on track for around 2.8 \degree C global average heating by 2100 (25,59,60). The IPCC AR6 stresses that with every increment of global temperature increase, the likelihood of extreme weather events increases in terms of both frequency and intensity (48).

Urgent, ambitious and transformational action at scale – as opposed to minor incremental changes – is needed to limit global average temperature rise to well below 2 \degree C, and preferably below 1.5 \degree C, to minimize the harm to health and societal well-being (61,62). Any delay increases the scale of the challenge and the health impacts of climate change on the most vulnerable communities and members of society.

Parties to the Paris Agreement are being urged to renew and step up their commitments to deliver and meet the goals of the Agreement as communicated through their NDCs and national adaptation plans (NAPs), while making health and well-being an integral consideration (63). Importantly, such action also supports the fulfilment of United Nations General Assembly Resolution 76/300 on the human right to a clean, healthy and sustainable environment, which also notes that the realization of this right requires full implementation of multilateral environmental agreements (64), such as the UNFCCC. Article 4.1.f of the UNFCCC offers a legal entry to incorporate health considerations into climate change adaptation and mitigation policies and efforts to reduce health impacts (65).

Maintaining the necessary conditions to protect human health means aiming for net zero greenhouse gas emissions by 2050, or a 43% emissions reduction by 2030, to stabilize global temperatures (66). Transition to a zero carbon economy could bring about a range of near- and long-term health gains, which provide a key hook to the policy debate on climate risks, mitigation and adaptation. For example, investing in climate policies that reduce air pollution would be a “best buy” in economic terms. At the global level, the economic value of the gains for health from emission scenarios that meet the commitments of the Paris Agreement would exceed the financial cost of mitigation, in some cases several times over. Meeting the Paris Agreement targets could lead to global health benefits worth US$ 26 trillion by 2050, far exceeding the estimated cost of implementing the necessary measures (67).

Cleaner energy improves air quality; sustainable food systems produce healthier diets at lower levels of greenhouse gas emissions; and sustainable urban planning promotes active mobility. These mitigation options are also likely to yield significant benefits to mental health and have a positive impact on various social determinants of health, including social cohesion and equity. Mitigation that creates healthier natural and built environments aligns with WHO strategies to reduce the incidence of communicable and noncommunicable diseases, such as respiratory and cardiovascular diseases (67). Multiple benefits of mitigation action have also been demonstrated for the WHO European Region using the Carbon Reduction Benefits on Health (CaRBonH) calculation tool. Although most likely an underestimate, the tool shows that about 138 000 premature deaths could be avoided per year from 2030 in the Region through reduced carbon emissions, with a valuation of the averted premature deaths of US$ 244–577 billion (68).

Even if the world achieved net zero carbon today, it would still need to deal with the irreversible consequences of climate disruption already caused, imposing challenges and huge costs in terms of adaptation for all sectors. Failure to cut emissions will considerably increase the annual costs of adaptation in the future. Estimated global annual adaptation needs are US$ 160–340 billion by 2030.
and US$ 315–565 billion by 2050 if no adequate action is taken (69). Although there are financial, technological and physiological challenges to meeting global adaptation needs, there is an urgent need to prioritize adaptation alongside mitigation before adaptation limits are reached.

As countries advance into the Decade of Action for achieving the 2030 Agenda for Sustainable Development, prioritization and scale-up of cost-effective solutions, and improved understanding of the full extent of financing required for both adaptation and mitigation are essential (70). This includes understanding of the costs of action and, more importantly, the costs of delay and inaction.

The health sector plays a vital role in achieving the 2030 Agenda, and urgent action is needed to meet its requirements. The interdependencies and potential synergies between climate action and health systems performance are multiple. Adaptation action increases the resilience and preparedness of health systems. In turn, reducing the health sector’s greenhouse gas emissions reduces the impact of the climate crisis on public health, and thus on health systems. Therefore, the health sector needs to engage both internally and with other relevant stakeholders to:

- ensure that it is equipped to adapt and deal with the current and locked-in impacts of climate change;
- take ambitious action in reducing its own carbon footprint;
- engage proactively in the development of cross-sectoral climate actions that strongly promote health co-benefits.
The asks

The science regarding the current and forthcoming impacts of climate change is clear, as is the need for urgent ambitious action to restrict global average temperature rise. By adopting a “zero regrets” perspective, the WHO European Region can strive for a future where climate change and its associated health risks are effectively managed, ensuring a better quality of life for current and future generations.

With this in mind, the HIC Working Group champions the following health-oriented “asks” (Fig. 2).

1. **Strive for “net zero” before 2050.** The sooner net zero is reached, the better for health. The sooner net zero is reached, the greater the opportunities to adapt to the current and future climate. The sooner net zero is reached, the greater the health co-benefits such as improved air quality, a more physically active population and healthier diets.

2. **Tackle emissions from fossil fuels.** Clean energy and transport will bring immediate health gains through better air quality, and are integral to achieving climate objectives.

3. **Promote healthy dietary choices.** Transitioning to more sustainable food systems that are low in greenhouse gas emissions is beneficial for health, biodiversity and climate.

4. **Introduce “climate change and health in all policies”.** The causes and impacts of climate change are cross-sectoral; their solutions require climate and health proofing to be integrated into decision-making across all sectors and levels of government. The health sector needs to engage in cross-sectoral climate action, and health needs to become a core consideration within climate action in all health-determining sectors.

5. **Accelerate health adaptation at all levels of governance.** Synergies with other sectors’ adaptation policies need to be optimized to prevent climate impacts on health, enhance climate resilience, promote health and health equity, and avoid maladaptation.

6. **Lead by example.** Scaling up adaptation action to enhance the climate resilience of health systems and health-care facilities is essential, hand in hand with proactively promoting and striving for low-carbon and environmentally sustainable health service delivery.

7. **Strengthen the role of health professionals.** Climate-literate health professionals can anticipate and respond to climate health impacts. They can use their trusted voice to promote climate-transformative behaviours in the community. A strong health voice can raise and sustain ambition for both mitigation and adaptation.

8. **Promote meaningful dialogue by policy-makers with local communities and civil society.** Such participatory engagement informs effective and equitable policies, maximizes health co-benefits and minimizes unintended harms and inequalities.

9. **Make the case for climate investments in the health sector.** Mobilizing and sustaining additional resources, including by maximizing the economic opportunities presented by strong national climate policies, will enable ambitious climate change mitigation and adaptation in the health and health-determining sectors.

10. **Strengthen the evidence.** To inform policy-making, it is important to monitor trends in health impacts of climate change and the health effects of adaptation and mitigation actions, and to evaluate rigorously the effectiveness of climate policies.
Fig. 2. Overview of the asks and areas for action

THE ASKS

- Strengthen the evidence
- Make the case for climate investments in the health sector
- Promote meaningful dialogue by policymakers with local communities and civil society
- Moving from awareness to implementation

HEALTH IMPACTS

LIMIT TO 1.5 °C

- Strengthen the role of health professionals
- Lead by example
- Monitoring, quantifying and assessing

MOVING TO HEALTH-ORIENTED CLIMATE ACTION

- Strive for “net zero” before 2050
- Tackle emissions from fossil fuels
- Promote healthy dietary choices
- Introduce “climate change and health in all policies”
- Accelerate health adaptation at all levels of governance

- Limit to 1.5 °C
- Mental health
- Respiratory diseases
- Water- and food-borne diseases
- Cardiovascular diseases
- Vector-borne diseases
- Heat stress
- Malnutrition
- Vector-borne diseases
- Injuries
- D is placement
- Vector-borne diseases
- Heat stress
- Malnutrition
- Vector-borne diseases
- Injuries
Moving to health-oriented climate action

In support of the “asks”, the HIC Working Group champions the following health-oriented climate actions in the WHO European Region. The actions listed are not meant to be comprehensive or prescriptive; rather, they are intended to provide inspiration for possible action at the national, subnational and local levels, and can be expanded and adapted as needed.

Countries’ efforts to implement action on climate change and health across national priorities and various sectors should align closely with and be guided by international commitments on:

- **leaving no one behind** in addressing the core drivers of climate change and health by implementing the UNFCCC (65), the Paris Agreement (63) and the Agenda for Sustainable Development (70);

- **building forward better** by taking decisive steps to tackle climate change and achieve healthier environments by following the prescriptions of the WHO Manifesto for a healthy recovery from COVID-19 (54) and by applying the Sendai Framework for Disaster Risk Reduction as a roadmap to make communities safer and more resilient to disasters (71);

- **achieving universal health coverage**, with climate change becoming an integral consideration in health system decision-making, incorporating goals for mitigation and cutting greenhouse gas emissions by the health sector, while implementing health adaptation plans (72).

Moving from awareness to implementation

- Reform national health strategies to make climate change resilience, low-carbon service delivery and environmental sustainability integral, in line with the COP26 and ATACH commitments. This will minimize the climate impacts of health systems and improve their ability to detect, prepare for, respond to, recover from and learn from climate-related shocks and stresses.

- Reduce the carbon footprint of health infrastructure, transport systems and travel, and apply climate targets to benchmark the delivery of care, purchasing, supply chain and commissioned services.

- Support national ambition in transport and energy production, improving practices around incineration of solid waste and agricultural waste and fertilizer practices in agriculture to attain the WHO goal of reducing the number of deaths from air pollution by two thirds by 2030, while also achieving a reduction of greenhouse gas emissions.

- Institutionalize climate change within health departments and agencies. Establish collaborative platforms to foster coordination across existing governmental departments, specialities and institutions on health, environment and climate change at the local and national levels.

- Develop, design and implement climate change mitigation action across sectors that maximize health co-benefits and strengthen health promotion. Such actions could promote, legislate for and deliver:
  - smart urban design and planning that promotes active mobility, increases energy efficiency of the built environment and improves mental health;
  - a green transformation to clean energy and transport that reduces air pollution;
  - healthy sustainable food and nutritional systems, and accessible and affordable diets that are rich in plant-based food and low in red and processed meats.

- Integrate health considerations in NAPs and develop health national adaptation plans that are informed by health vulnerability assessments.
Strengthen integrated surveillance and climate-informed early warning systems tailored to health-sector needs and use – for example, for extreme weather events, infectious diseases and air pollution.

Set up and maintain effective, adequately resourced and stress-tested capacity to prepare for and respond to climate-related health hazards at the national and subnational levels, in accordance with the International Health Regulations (2005) (73) and the Sendai Framework for Disaster Risk Reduction.

Develop and implement heat-health action plans to prevent and minimize adverse health impacts. These plans need to be informed by the involvement and input of all concerned sectors and stakeholders, including local communities.

Integrate climate change into water and sanitation policies and governance, and implement climate-resilient water and sanitation safety plans, to ensure and sustain safe and reliable water, sanitation and hygiene services for communities and in health-care facilities.

Repurpose financial gains from carbon pricing policies and from the reduction in, or elimination of, fossil fuel subsidies to support health-informed climate action.

**Monitoring, quantifying and assessing**

Use the global stocktake process under the Paris Agreement to assess the effectiveness of efforts to date in addressing the health impacts of climate change, beginning with the first stocktake in 2023.

Conduct baseline and follow-up assessments of greenhouse gas emissions for the health and social care sector, using – where appropriate – national emission inventories and projections, and set out a plan for reducing or minimizing them in line with the ATACH commitment to low-carbon and environmentally sustainable health systems.

Mobilize resources for research on the effectiveness of climate adaptation and mitigation interventions, including health risk assessments, health co-benefit analyses and cost–benefit analyses.

Integrate climate considerations into health information systems and develop analytical capacity to undertake integrated health vulnerability, impact and adaptation risk assessments at the national and subnational levels.

Develop and implement monitoring instruments to track the impacts of climate change on human health, as well as evaluation processes to assess the impacts and progress of health climate action. Include a focus on the distribution within the population to identify vulnerable groups.

Quantify the potential health and associated economic benefits of reducing greenhouse gas emissions, including in respect of air pollution, active mobility, sustainable diets and other healthy mitigation policies, as well as the potential costs of inaction – particularly in relation to noncommunicable diseases. Such assessments should support economic decision-making processes.

Quantify and monitor the adequacy of climate finance from national, bilateral and multilateral sources for scaling up health-responsive climate action through mechanisms such as the global stocktake and the global goal on adaptation under the Paris Agreement.
Leading and communicating

- Share methodologies and assessments, including case studies on effective adaptation and mitigation efforts, through existing platforms such as the European Climate and Health Observatory (74) and through peer-to-peer Member State engagement across the Region, to broaden the knowledge base, identify research gaps and inform best practice in developing strong climate action.

- Identify and maximize health-related climate actions at multilateral forums, including the UNFCCC Climate Conferences, and ensure that national participation is informed by the voice of health representatives.

- Incorporate health input in national communications to the UNFCCC, NAPs and adaptation communications, NDCs and long-term low-emission development strategies under the Paris Agreement.

- Promote equity-oriented national adaptation and mitigation action to leave no one behind and maximize health co-benefits, particularly for vulnerable groups.

- Reinforce the leadership capabilities of health authorities in catalysing action on prioritizing green energy, sustainable diets, clean transport, active mobility and other healthy mitigation policies, and in promoting healthy, affordable and sustainable behaviours in the public domain.

- Incorporate climate change in medical and health curricula. This will strengthen the climate literacy of health professionals and empower them to engage meaningfully on climate change policy development. Health professional networks and continuing education programmes play a strong role in education and communication of climate and health messages.

- Develop, enhance and promote climate change and health communications (for example, policies, training material, tools and public advice) to raise awareness at the international, national and subnational levels.
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