

INSIGHTS

8 April 2022

Health as a lever for action on climate change

CONFERENCE PROCEEDINGS



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IANPHI and Santé publique France commit to improving health through action for the environment

On 8 April 2022, Santé publique France and the International Association of National Public Health Institutes (IANPHI) organised a day of discussions on the subject of health as a driver for action against climate change. The objective of this event was to highlight the links between climate, biodiversity and health and to encourage concrete action at local, national and European levels.

Geared towards knowledge sharing and action-oriented research, this interdisciplinary seminar illustrates how Santé publique France and IANPHI are working together to engage and support national public health institutes as key players in the fight against climate change.

Public health institutes are on the front line when it comes to identifying and preventing the already evident health impacts of climate change. They use evidence to promote policies for adaptation, mitigation and biodiversity protection, which benefit the health of all. In the face of rapid environmental shifts, the effects of which are already noticeable, climate action is an essential intervention for global public health.

The various presentations given on 8 April highlighted the diverse and severe impacts of climate change, on both physical and mental health, as well as the many health benefits associated with ambitious climate policies. The speakers emphasised how the environmental and socio-economic determinants of health can be used to drive climate adaptation and mitigation. Inspiring examples, based on a positive vision of the links between environment and health, show how alliances between multisectoral stakeholders can radically transform living environments to make them more favourable to health and biodiversity, while simultaneously addressing the imperatives of climate adaptation and mitigation. Confronted

with unprecedented scientific and social challenges, public health institutes are joining forces with European and international institutions to share knowledge, provide feedback and estimate the health benefits of climate policies.

Successive heatwaves, fires, floods and droughts marked the summer of 2022 with a multitude of complex health crises linked to climate change, leaving no continent untouched. These extreme phenomena remind us that our failure to adapt is already jeopardizing the health of current generations, and that the health of future generations cannot be secured without strong, rapid measures to reduce greenhouse gas emissions and protect biodiversity.

Following on from the event of 8 April 2022, and the roadmap published in 2021, IANPHI has set up a standing Committee on Climate Change and Health with the aim of facilitating dialogue between public health agencies on this major issue. Santé publique France has established climate change as a priority action point in its work programme. In this way, the agency commits itself to the surveillance, warning and prevention of climate-influenced health risks, to the identification of vulnerability factors, to the production of indicators to support public policies, and to climate advocacy.

Sébastien DENYS

Director of Environmental and Occupational Health, Santé Publique France
Chair of the IANPHI Committee on Climate Change and Health

Prof. Duncan SELBIE

Former Chief Executive of Public Health England,
President of IANPHI

Organisation committee

Scientific programme

- **Mathilde Pascal** - Scientific Project Officer, Environmental and Occupational Health Department, Santé publique France
- **Guillaume Boulanger** - Head of Unit, Environmental and Occupational Health Department, Santé publique France
- **Arnaud Mathieu** - Task Leader, Environmental and Occupational Health Department, Santé publique France
- **Marie-Claire Paty** - Thematic Coordinator, Infectious Diseases Department, Santé publique France
- **Agnès Verrier** - Scientific Project Officer, Prevention and Health Promotion Department, Santé publique France
- **Pascal Jehannin** - Thematic Coordinator, Regions Department, Santé publique France

Event moderator

- **Chris Burns** - Burnstorms Communication

Opening statements

The urgent need for action



Click on the image to watch the video replay

What are the major stakes of adaptation and mitigation?

Prof. Valérie Masson-Delmotte, co-chair of Working Group 1, Intergovernmental Panel on Climate Change (IPCC)

Global warming has reached 1.1°C above the temperatures recorded at the end of the 19th century. We are experiencing rapid, significant changes that are affecting all regions of the world in an unprecedented way. This change is due to human activities, and greenhouse gas (GHG) emissions have reached record levels over the past decade. The influence of humans on the climate is making heat waves, extreme rainfall and droughts more frequent and intense. In particular, we have seen an intensification of the water. Some changes are irreversible, for example the rise in sea levels.

Adaptation strategies already exist, but we are not moving quickly enough and the scope is not substantial. The health of populations around the world is already suffering from the impacts of extreme heat, vector-borne diseases, or risks linked to water, food and air quality. There is also a major effect on mental health.

Without large-scale GHG reductions, the climate will continue to warm up. With current policies, we will reach a 1.5°C increase in the next 20 years, we could exceed 2°C around 2050, and we cannot exclude reaching warming of 3°C by 2100.

A world that is 1.5°C warmer means more people exposed to climate hazards and increased loss of biodiversity, with serious repercussions for human populations. These complex risks have global implications and need urgent attention. For example, the drop in agricultural yields caused by heat and water stresses will have cascading effects on food security, income and poverty.

Taking action on the food system, such as moving towards a healthier, more sustainable and more balanced diet, with more plant-based proteins, is one of the main actions that will benefit health, biodiversity and the climate.

Strengthening health systems is also critical. Resilience to the direct and indirect effects of climate change must be built into these systems, while also reducing their GHG emissions, which means looking at transport, buildings, materials, etc.

To keep warming below +2°C, global GHG emissions must be reduced by about 43% by 2030, and net zero must be reached by 2050. There are solutions to achieve this in all sectors. Civil society now supports climate-focused public policies. People have understood that they benefit from these actions: reduced air pollution, less fuel poverty, improved nutrition, active modes of transport, cities that are more pleasant to live in, etc. The investments required are modest, around 15% of GDP, but the benefits in terms of public health are considerable.

Adaptation strategies already exist, but we are not moving quickly enough and the scope is not substantial.

How do young people perceive the links between climate and health?

Adélaïde Charlier, Youth for Climate, Belgium

Currently, the health system tends to separate humans from the environment, and the body from the mind. This is a big mistake, because everything is linked, as the recent IPCC report shows.

There has been significant mobilisation among young people over the past three years, through strikes and climate marches. These actions are driven by the considerable gap between warnings from the scientific community and the level of response from the political world and private sector. The goal of our mobilisation is to reduce this gap, and to engage citizens in the momentum of transition.

The World Health Organization (WHO) believes climate change to be the greatest public health risk of the 21st century, and climate action its greatest opportunity. The WHO also points out the unfairness of the situation; the people most affected by the consequences of climate change are not those responsible for GHG emissions. One of the objectives of the Youth for Climate movement is to bring the people and areas most at risk to the forefront, then listen to them.

Confronted by this unfairness, we are not only calling for carbon neutrality by 2050, but also for a radical change to our model of society. The health sector is obviously concerned, since its GHG emissions need to be reduced and it must keep up with pace of change in other sectors. Currently, the health system tends to separate humans from the environment, and the body from the mind. This is a big mistake, because everything is linked, as the recent IPCC report shows. Mental health is a case in point; the mental health of my generation is falling apart. A recent study shows that 75% of young people find the future “scary” and 39% are reluctant to have children.

Older people say that each generation has its own struggle. Yet the current situation is different because the struggle concerns all of humanity. All generations are affected and must take responsibility. The IPCC reminds us that we have three years left to change our course. We must accelerate our actions.

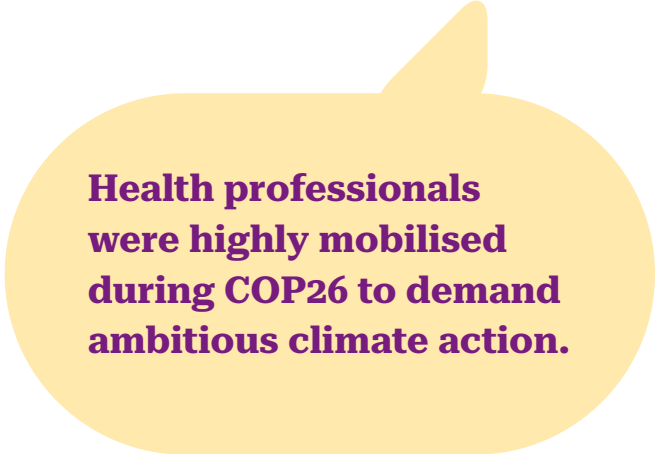
What place did COP26 give to health?

Dr Revati Phalkey, Head of the Climate Change and Health Unit,
UK Health Security Agency

COP26 upheld a desire not to exceed +1.5°C warming, and recognised the central place of health. In terms of both adaptation and mitigation, the importance of health is no longer negotiable; the links between climate and health are now recognised. Scientific knowledge played a predominant role in the COP26 debates, in terms of both the extent of the impacts and the possible solutions. Finally, there were several discussions on funding: how to mobilise funds for health systems and the type of mechanisms that need implementing in order to do that.

The importance of adaptation and its complementarity with mitigation was also much discussed. As for health systems, they need to be developed and made resilient in a sustainable way – their GHG emissions must also be reduced.

Finally, emphasis should go to the growing mobilisation of the health sector. The number of countries that include the question of health in their Nationally Determined Contributions has increased. Health professionals were highly mobilised during COP26 to demand ambitious climate action. Many health institutions have initiated roadmaps in order to plan for adaptation and the reduction of their GHG emissions.



Health professionals were highly mobilised during COP26 to demand ambitious climate action.

Session 1

Climate change, biodiversity and public health: **from knowledge to action**



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watch the video replay**

What are the main findings of the 6th IPCC report in terms of health?

Diarmid Campbell-Lendrum, Climate Change and Health Coordinator,
[World Health Organization \(WHO\)](#)

The 6th IPCC report shows that while the threats to health are considerable, so are the benefits of acting on the sources of greenhouse gases – with lives literally being saved. This justifies the message upheld by WHO these past few years in that climate change is the greatest public health threat of the 21st century, and climate action is its greatest opportunity.

We now have a clear view of climate developments, both present and future. At current emissions levels, we are heading for a +3°C increase by the end of the century, with a considerable rise in sea levels that will continue over subsequent centuries. In terms of changes, the averages are not the only concern; there are also extremes. For example, extreme temperature events that currently occur every 10 years at most would become annual with a warming of +4°C.

We are already seeing negative impacts on a wide range of health issues, even at a modest degree of warming: increased exposure of populations to heatwaves and their associated morbidity and mortality, an increase in food-, water- and vector-borne diseases, and the deterioration of mental health. All over the world, a large part of the population – particularly young people – are worried, anxious or distressed about climate change. These feelings are not evidence of irrationality: being worried about climate change is a healthy reaction.

The negative impacts are expected to increase with the magnitude of warming and in the event of limited adaptation. Properly planned and sized adaptation is essential. This includes developing resilient health systems and addressing fundamental health determinants such as access to

basic resources (water, food, energy). However, adaptation measures have a limit, should climate change continue unmitigated.

National public health institutes have an important role to play in adaptation policies, for example by contributing to early-warning systems, developing surveillance and prevention actions, and prioritising measures that address several health risks and determinants simultaneously.

Mitigation measures will deliver significant health benefits. For example, measures targeting greenhouse gas sources can improve air quality. The development of non-motorised active mobility (walking, cycling) improves physical and mental health. Reducing red-meat consumption is also a very beneficial mitigation measure from a health perspective. Taking into account the health benefits of these solutions offsets the costs.

At WHO, we believe that societies have a simple choice to make. There is a closing window of opportunity in which to act and secure the future of humanity, and this action will result in substantial health benefits. Thus, the real cost to society of climate action is nothing.

Climate change is the greatest public health threat of the 21st century, and climate action is its greatest opportunity.

What are the links between climate, biodiversity and health?

Dr Carlos Das Neves, Director of Research and Internationalisation,
Norwegian Veterinary Institute

The concept of health goes beyond that of humans. Biodiversity, health and climate are mutually influential, and taking action can benefit all three simultaneously.

The IPCC is very clear about the threat posed by global warming to health, the urgency to act, and the solutions. The joint report of the IPCC and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) concludes that climate change is a threat to nature and biodiversity. IPBES makes a clear link between the biodiversity crisis and pandemics; future pandemics will be more frequent, spread faster and kill more people than COVID-19 if we do not change how we think about health. But IPBES also highlights the possibility of taking action to protect biodiversity and prevent the risk of pandemics.

The exploitation of natural resources and land use are resulting in the destruction of biodiversity and the disappearance of species at an unprecedented rate. This favours the transmission of certain diseases to humans. It is estimated that around 30% of disease emergence worldwide is related to land use. How we interact with wild animals is also a source of many infectious risks, through their poaching, farming and trade, be it for consumption or recreation.

We already have several examples of the harmful influence of climate change on the health of species and ecosystems. In Norway in 2006, extreme temperature and humidity conditions favoured a bacterial disease that rapidly decimated the remaining population of muskoxen (*Ovibos moschatus*) on the European continent.

In 2015, weather conditions killed over two-thirds of the saiga antelope (*Saiga tatarica*) population in less than three weeks in Kazakhstan.

The most emblematic example is that of amphibians, several species of which have disappeared because of a fungal disease favoured by global warming. To give a more positive example, the eradication of rinderpest (caused by the Rinderpest virus) through the vaccination of animals has reduced the risk of fire, promoted tree growth, increased CO₂ storage, and improved the quality of life for local communities.

Understanding these interdependencies is necessary for action. The One Health approach is a way to promote multidisciplinary collaborations between various realms: politics, private sector, research and civil society. These days politicians are often reactive, the private sector doubtful, research fragmented, and civil society indifferent. The COVID-19 pandemic has set in motion a wave of dynamic collaboration that we must maintain. One Health is already the subject of several plans in African countries, but not in Europe. Some recent initiatives are nonetheless moving in the right direction, for example the Prezode project in France.

The cost of implementing One Health policies would be far less than the economic impact of pandemics. This includes protecting carbon-rich environments and ecosystems (forests, wetlands, etc.), supporting sustainable agriculture, eliminating subsidies for activities harmful to biodiversity, and regulating the trade of wild animals.

Biodiversity, health and climate are mutually influential, and taking action can benefit all three simultaneously.

What can public health institutes do about climate change?

Prof. Duncan Selbie, President of the [International Association of National Public Health Institutes \(IANPHI\)](#)

Climate change must be an institutional priority for every national health institute (NPHI). The International Association of National Public Health Institutes (IANPHI) brings together over a hundred NPHIs worldwide. Our mission is to protect and improve the health of populations and to develop the capacity of NPHIs through dialogue and peer support.

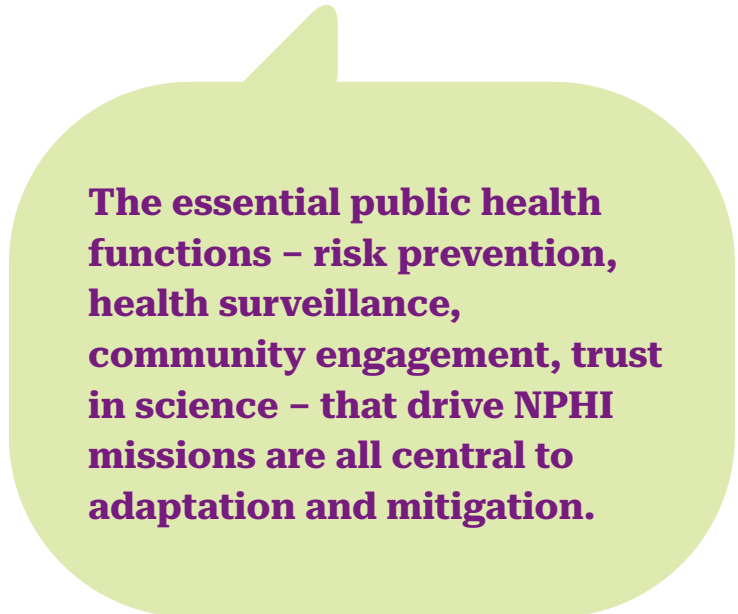
NPHIs are in direct contact with governments around the world. At present, climate change is not sufficiently considered in public health policies, and this is what we want to change. We have published a roadmap of measures that each NPHI should commit to, and have established a standing committee on climate change to monitor these actions.

The science is very clear, but we need to work in a collaborative and concerted way in order to turn knowledge into action. We want NPHIs to contribute their expertise and data to this collective mobilisation.

The core public health functions – risk prevention, health surveillance, community engagement, trust in science – that drive NPHI missions are all central to adaptation and mitigation.

Investment in public health and especially in prevention is essential. The COVID-19 pandemic has shown us the importance of early detection, health alerts and surveillance, stressing the extent to which health and the economy are inseparable. During the various lockdowns, improved air quality saved lives, but many people were left in poverty. All of these interactions must be taken into account in order to allow for appropriate and equitable decisions that protect the most vulnerable populations. Investment in public health improves the health of the population and ultimately the economy. Today, policies are implemented reactively rather than proactively, making them much more costly and less effective.

Within IANPHI, the NPHIs can share their experiences of concrete actions for climate and health. We also encourage NPHIs to lead by example and communicate on the strategies they employ for reducing their environmental footprint.



The essential public health functions – risk prevention, health surveillance, community engagement, trust in science – that drive NPHI missions are all central to adaptation and mitigation.

Session 2

How can we join the dots between climate, biodiversity and public health in public policy?



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Why is the issue of health so low on the agenda for climate policy?


Dr Magali Reghezza, Lecturer and Researcher in Geography, École normale supérieure; Member of the Haut Conseil pour le climat (High Council on Climate), France

At all levels of decision-making, we need to move from a reactive and curative approach to an anticipatory and preventive approach, to seek co-benefits, and to guarantee the continuity of policies over time. Public policies on climate, biodiversity and health are fundamental in our democracies, where the role of the public authorities is to lead, to set an example and to be accountable.

Today, creating public policies requires precise skills and the involvement of specific professions, which leads to a certain amount of specialisation and compartmentalisation. Ambitions of global thinking and intersectoral approaches often remain stymied due to this structural organisation in silos. The starting point for progress is to understand the mechanic relationship between climate, biodiversity and human health. Some countries have invested heavily in fundamental research to move forward on these issues, in line with the One Health framework. However, the human and social sciences are often forgotten in this research, even though the IPCC, in its latest assessment report, reminds us that social factors play an instrumental role.

We must also be able to understand, measure and anticipate the effects of a changing climate, as well as the effects of the transition and of climate policies, on the lives of individuals and communities. This means taking a retrospective look at chains of risks and consequences, and linking them to public policies which currently do not tend to integrate such risks. For example, the link between biodiversity and mental health has been long-overlooked, yet studies have shown that access to areas with a rich biodiversity improves mental health.

Some crucial topics are today largely absent and sidelined from the climate debate: prevention of health risks, ageing, disability and access to care. Yet these issues can unlock funding for public policies, using key support mechanisms such as compensation, social security – particularly the financing of health insurance and dependency – and access to quality care. We have often confined our thinking on the quality and resilience of health systems to developing countries, but health systems in developed countries are also vulnerable to climate change.



The human and social sciences are often forgotten in this research, even though the IPCC, in its latest assessment report, reminds us that social factors play an instrumental role.

In its annual reports, the High Council on Climate (*Haut Conseil pour le climat*) has recommended several ways to improve public policies: working towards a time horizon of 2025–2030 while conducting regular ex-post and ex-ante evaluations of public policies; redefining roles, strategic or managerial levels, and state interventions; choosing an optimal scale for taking action, in a spirit of subsidiarity – a scale specific to each situation, which will also improve national steering and multi-level governance. Land development, particularly at the national level, is another area that is currently insufficiently leveraged. Yet it is essential, because land-use planning has a role in infrastructure, usage and practices.

Finally, it is worth looking at the transition policies that are already in place, and noticing that some are proving more beneficial than expected. For example, a project to cover school playgrounds in Paris with permeable materials has helped to rebuild social links, deliver preventive actions on diet and urban biodiversity, and improve education. However, scientific monitoring of these kinds of projects requires improvement.

How can climate, biodiversity and public health be connected at national level?

Prof. Geneviève Chêne, Chief Executive of Santé publique France

Highlighting this interconnection is an important part of our work. At Santé publique France, one of our core functions is health surveillance and alerts.

One of the objectives of health surveillance is to build indicators that measure and highlight health impacts, as well as their repercussions on social determinants. At present, we do not use these kinds of indicators enough when building public policies, although they could help us to establish priorities or contribute to policy evaluations.

A number of NPHIs are considering producing health indicators that are relevant to climate policies. This was the subject of a report published by Santé publique France in 2021. Sharing experiences and creating common indicators around climate change is also one of the priorities of IANPHI for the coming years. The aim is to document the diverse health effects of climate change by thinking in terms of dangers, exposure, vulnerability, impacts and interventions. This means that developments can be examined over time, and lessons for public policy can be drawn from them. For example, how frequent and intense are heat waves in an area, how has this changed and what can be expected, what does this require in terms of response? These indicators must be published and made available to the public. They must obviously be communicated to decision-makers for public-policy making, but also to citizens; not only for information purposes, but also to foster trust in public authorities.

Intersectorality is another crucial aspect of the actions delivered by Santé publique France. For example, we work in partnership with the French weather forecast service to monitor heat waves, meaning we describe the health component of alerts and can quickly measure impacts.

Together with the French Agency for Ecological Transition (Agence de la Transition écologique, ADEME), our work aims to develop quantitative health impact assessments (QHIA) of air pollution with local authorities. A QHIA is a useful tool for supporting and evaluating interventions on the environmental determinants of health at regional level. The tool uses scientific data to show the number of deaths that could be avoided using different scenarios that are of interest to local decision makers. We are currently working with three cities to expand this QHIA tool and apply it to other environmental determinants of health. After all, the function of a public health agency is the overall promotion of healthy environments.

Sharing experiences and creating common indicators around climate change is one of the priorities of IANPHI for the coming years ... These indicators must be published and made public.

What are the challenges facing research?

Prof. John Newton, Professor of Public Health and Epidemiology, European Centre for Environment and Human Health, University of Exeter, UK

Faced with a narrowing window of opportunity, we need to think radically and differently. The scientific messages are clear, public awareness is growing, and to some extent politicians are willing to act. This was all evident during COP26. Today, the problem is the concrete implementation of the actions.

We need to learn from the COVID-19 pandemic: health surveillance is essential, and data must be transparent and published so that we can all use it to develop informed actions.

The willingness of NPHIs to take the lead on climate change and health is a step forward, but it is not enough. Historically, the track record of public health policies on major health determinants such as smoking, air pollution and obesity is not good. We have known for 60 years that tobacco is harmful, yet hundreds of thousands of people still die from it every year. We cannot adopt the usual methods deployed for these determinants in the face of climate change, because a) they may not work, and b) if they do work, it will be far too slowly.

We need to be disruptive. In scientific terms, this means for example assessing the positive effects of biodiversity and climate action, rather than focusing solely on the threats. We are working on this at the European Centre for Environment and Human Health in Exeter, through studies exploring the health benefits of actions on land use involving nature-based solutions. For example, there is now a lot of evidence linking environment and mental health. In the UK, the public health agency has joined forces with national parks to improve health. Indeed, connecting people to nature requires not only a good environment, but also infrastructure and support, which in turn requires investment.

Another priority is to expand our partner networks. It is about reconnecting with the roots of public health in the 19th century, when collaborations between doctors and urban planners reshaped our cities.

Finally, it is essential to organise the funding of the measures. Today, while it is accepted that adaptation, mitigation and biodiversity conservation actions are cost-effective, this does not mean that they are funded.

In scientific terms, this means for example assessing the positive effects of biodiversity and climate action, rather than focusing solely on the threats.

What can be done locally?

Riitta-Maija Hämäläinen, Manager for Sustainable Development, Päijät-Häme Regional Joint Authority for Health and Social Welfare, Lahti, Finland

The health and social services of the Päijät-Häme region in Finland, based in the town of Lathi, have embarked on a process of decarbonising their services through various projects. Overall, health services are responsible for 4% of the region's total greenhouse gas emissions. We intend to increase the share of renewable energy in running health and social services. At present, heating is a major source of energy demand in Finland, but in the future, we may also need to develop air conditioning solutions for our health and social services in order to deal with heatwaves. Our vehicle fleet will soon be fully electric. We are accelerating the digitalisation of services for patients and users. We are also integrating environmental criteria into the procurement of materials and equipment.

Strengthen inhabitants' connection to nature, for example by improving parks, hiking trails and the water quality of the lakes. Greater connection to nature improves mental health while encouraging physical activity and social contacts.

Our health and social services are also subject to a ten-year programme, called 'Nature Step to Health', which aims to:

- improve food and nutrition services by making meals more sustainable, with more plant-based products served in schools, workplaces, and elsewhere;
- promote active mobility by supporting walking, cycling and public transport within cities and communities;
- strengthen inhabitants' connection to nature, for example by improving parks, hiking trails and the water quality of the lakes. Greater connection to nature improves mental health while encouraging physical activity and social contacts;
- improve living environments through better planning of buildings, increased connections to services and transport, and greening.

Intersectoral partnerships are essential to this programme, which ultimately aims to improve the health of the population while reducing its use of conventional health and social services. For example, we are developing partnerships for research, communication and education between the City of Lahti, universities, research institutes, non-governmental organisations and enterprises.

Session 3

Inspiring examples from European cities



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Utrecht, the Netherlands

Miriam Weber, Health Coordinator, [City of Utrecht](#)

Utrecht is the fourth largest city in the Netherlands. It's a green, dynamic, university city that is rapidly growing. The population is expected to increase by 100,000 over the next 20 years, placing great pressure on public spaces.

For several years, health and health equity have been at the heart of all our policies and decisions. The city's ambition is to develop healthy urban living for everyone, and this strategy guides our policies. Health is defined not only as the absence of disease, but also as the ability to make healthy choices and be an active member of society.

We therefore want to reserve urban space for health-promoting infrastructure and adaptation to climate change. To assist the decision-making process, we use the "Utrecht barcode", which colour-codes the demand for space in terms of the square-metres required by each urban element relevant to health, such as water, sports facilities, culture, housing...

We decided to promote active mobility, excluding cars from the city centre in favour of walking and cycling. This has led to major transformations: the pedestrianisation of streets, the re-watering of a canal that had been drained to build a six-lane motorway in the city centre in the 1970s. At the beginning of the project, the shopkeepers were afraid of losing their customers. In reality, the opposite has happened, and the shopkeepers now support the pedestrianisation projects.

We have also developed "bicycle highways", which are priority bicycle lanes within the city that connect to neighbouring municipalities. A pedestrian and bicycle bridge has been built to link new neighbourhoods to the historic centre. Next to the station, we built the world's largest bicycle parking facility. These bicycle parks are essential for freeing up public space.

Utrecht is the first Dutch city to have created low-emission zones; diesel vehicles have been banned and charging stations for electric vehicles installed. Biodiversity initiatives are also proposed: for example, a "bee highway" has been designed by greening the roofs of bus stops. Differences in life expectancy and health perception between neighbourhoods are used to give priority to actions in the most disadvantaged areas.

In order to gain the support of the population, citizens are involved from the very start of the project. For example, our sustainable energy plan was not drafted by experts at the municipal level, but by the citizens themselves. Over three Saturdays, we invited around 100 people to contribute to the drafting of the plan, in the presence of some experts and mediators.

We decided to promote active mobility, excluding cars from the city centre in favour of walking and cycling. This has led to major transformations.

Athens, Greece

Eleni Myrivili, Senior Advisor for Resilience, City of Athens

Athens is part of a metropolitan area with 38 other municipalities. While the city has a population of around 700,000, it is visited by 1.5 million people every day. Impermeable surfaces, concrete or asphalt, make up 80% of the city, which is the second densest in Europe after Paris. The few green spaces it has are unevenly distributed.

Rising temperatures and heat in cities pose a real challenge. The “urban heat island” effect is very important; compared to the suburbs, the city centre of Athens can accumulate an additional 10°C during the day, and an additional 5°C at night. It is estimated that around 200 people a year die from the heat, but the real impact is probably even greater. Impacts on energy consumption and commercial activity are also observed each summer. Heatwaves also increase the risk of peri-urban fires.

We are conducting three types of complementary actions aimed at raising awareness, anticipating, and rethinking urban design.

A heatwave alert system has been developed by analysing historical data to characterise the heatwaves most dangerous for health. They are categorised according to three levels of severity, with prevention actions associated with each.

Upstream, several measures have been developed: a freephone helpline, installation of cool places, community support networks, modified working hours, air-conditioning subsidies for people in fuel poverty, etc.

The last and most important type of action consists of changing the design of the city to incorporate more green space and water. For example, we are going to create a greenway to refresh the city using the water from Hadrian’s Roman aqueduct, which is clean but currently flows into the sewers.

The last and most important type of action consists of changing the design of the city to incorporate more green space and water.

Grenoble, France

Anne-Cécile Fouvet, Director of Air, Energy and Climate, City of Grenoble

The conurbation of Grenoble has a population of 450,000. Currently, the city experiences on average three days of extreme heat per year. By 2050, it could have an additional 43 extremely hot days each year.

With a view to adapting the city to the new climate and protecting the health of its inhabitants, we have developed a citywide heatwave plan. A number of priority targets have been identified as part of our heatwave plan: the general public, the elderly, young children, people in precarious living situations and local authority employees. It includes actions to develop public spaces through greening, soil demineralisation, and water inclusion.

During a heatwave alert, several measures are set into action: a public information procedure, free access to museums, city parks open 24-hours a day, public showers opened and water distributed to people in precarious living situations. A map of places where people can go to cool off is updated annually.

Including water in public spaces was important for citizens, especially if they could enjoy contact with it. Temporary misting systems are used during the summer. Work is underway to transform the ornamental fountains into fountains that people can use for cooling off.

Schools and nurseries are a priority target for actions that reduce discomfort in the summer. We are testing various options for cooling schools such as a system of ventilation grids attached to the windows, which can then be left open at night to cool down rooms, sprinkler systems in school playgrounds, adapted meals, etc.

Concerning elderly people, they can register for a service that offers regular phone contact to check on their well-being. If there is no response, someone will visit their home and provide help if necessary. This system is based on a partnership between the Red Cross, the fire brigade and the city's social services.

European funding is important for launching projects. Large-scale actions are needed to achieve a significant effect on public space, and this entails a high cost. The community alone cannot fund these actions, so we need to obtain external support. Finally, a highly cross-cutting approach is needed within the various departments to take into account all the issues at stake. For example, the vector risk linked to greening the city is a subject for joint discussion among the departments of health, environment and green spaces.

A number of priority targets have been identified as part of our heatwave plan: the general public, the elderly, young children, people in precarious living situations and local authority employees.

Session 4

How can we deliver actions **that promote health and climate?**

The video player interface includes the following elements:

- Logos:** République Française, Santé publique France, IANPHI (Public Health Institutes of the World), and FRANCE22.
- Slide Content:**
 - Header: SIXTH ASSESSMENT REPORT, Working Group II – Impacts, Adaptation and Vulnerability, ipcc, INTERGOVERNMENTAL PANEL ON climate change.
 - Title: Co-benefits of CLIMATE ACTION to HEALTH, WELLBEING and EQUITY.
 - Author: M. Cristina Tirado, DVM, MS, PhD, IPCC AR6 WG II.
 - Thumbnail: Climate Impacts, Adaptation, and Resilience.
 - Thumbnail: Climate Change 2022 Investigation of Climate Change.
- Speaker:** A woman with glasses speaking in a video call window.
- Interaction:** A large play button icon is centered over the slide, and a mouse cursor points to a yellow call-to-action button.

Click on the image to watch the video replay

What are the co-benefits of climate action for health?

Dr Cristina Tirado, IPCC Lead Author, University of California UCLA, USA

The 6th IPCC report summarises not just what is known about adaptation solutions to protect health, but also what is known about the health, well-being and equity co-benefits of climate change mitigation actions.

In terms of adaptation, the IPCC has identified heat and its impact on human health and that of terrestrial and marine ecosystems as the main risk for Europe. As such, the “Europe” chapter of the IPCC report proposes an assessment of the feasibility and efficacy of the adaptation options in economic, technological, institutional, socio-cultural and geophysical terms.

If climate interventions are implemented, it is estimated that 1.2 million deaths would be avoided each year in 2040 through improved air quality, 1.2 million through increased physical activity, and 5.9 million through improved nutrition.

Regarding the co-benefits of mitigation, the IPCC reviewed studies documenting the positive effects of the proposed mitigation options for cutting greenhouse gas emissions in half by 2030. It concludes with a high level of confidence that respecting the Paris Agreement and the Sustainable Development Goals would make societies more resilient and more equitable, with better health and well-being for all. If climate interventions (renewable energy, active mobility, sustainable food, etc.) are implemented, it is estimated that 1.2 million deaths would be avoided each year in 2040 through improved air quality, 1.2 million through increased physical activity, and 5.9 million through improved nutrition. Physical and mental health will improve.

The IPCC also proposes options for climate-resilient development based on adaptation, mitigation, biodiversity protection and respect of sustainable development agreements.

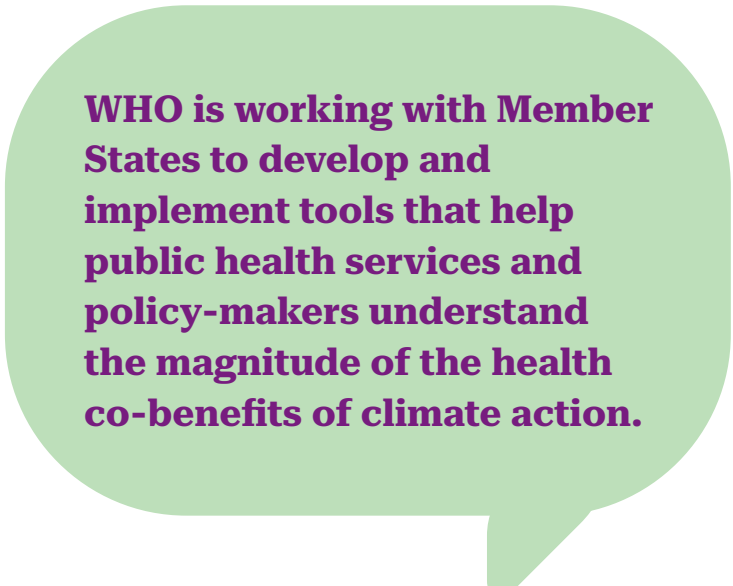
What tools has the World Health Organization developed to support the cross-cutting issues of climate, biodiversity and health?

Dr Francesca Racioppi, Director of the [European Centre for Environment and Health](#), WHO Regional Office for Europe

In 1989, Member States of the WHO European Region adopted in Frankfurt the European Charter on Environment and Health, which already recognised climate change as an important challenge. More than 30 years later, we still have a long way to go, and actions have lagged well behind the urgency that this crisis demands. We need to integrate these issues into all of our programmes, drive the necessary investments, and show that the health benefits of these investments will be felt immediately, not only in 30 years' time.

There is now a great deal of scientific evidence that makes it much easier than before to estimate the health benefits of environmental action, including climate mitigation policies. For example, it is now easy to prove that investments in active mobility, such as walking and cycling, can significantly improve the health of the population while reducing greenhouse gas emissions along with air pollution. WHO is working with Member States to develop and implement tools that help public health services and policy-makers understand the magnitude of the health co-benefits of climate action.

Our aim is to make these objectives accessible to as many people as possible, without the need for complex skills or data. For example, we already provide easy-to-use software for conducting quantitative health impact assessments on air pollution (AirQ+) and active mobility (HEAT, Health Economic Assessment Tool for Walking and Cycling).



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In terms of adaptation, since the 2003 summer heatwave, which killed 70,000 people in Europe, WHO has been working with all countries to share knowledge about warning systems, to develop health action plans, to conduct public health campaigns that raise awareness on heatwave protection, and to strengthen the adaptive capacities of health systems and their resilience to climate change.

What is the role of the European Climate and Health Observatory?

Aleksandra Kazmierczak, Expert on Climate Change and Health,
[European Environment Agency](#)

The European Climate and Health Observatory was launched in 2021 in connection with the new European Union adaptation strategy. Managed by the European Environment Agency, its aim is to help Europe prepare for and adapt to the impacts of climate change on human health. It also promotes information exchange and cooperation between international, European, national and non-governmental stakeholders.

The observatory provides environmental and climate data from the Copernicus programme that are relevant to health. For example, it forecasts of how climatic conditions will evolve in favour of the Asian tiger mosquito (*Aedes albopictus*) by 2050. We are also working with Lancet Climate Countdown, which is developing indicators such as population vulnerability to extreme heat.

The observatory also includes knowledge summaries on key risks. We have just published a literature review on the impacts of climate change on mental health.

Another important component of the observatory's activity concerns monitoring the adaptation actions implemented. We recently examined national climate and health policies in European countries. It was found that the majority of actions currently being implemented relate to knowledge generation, namely surveillance, advocacy or research. Adaptation interventions, in terms of infrastructure or regulation for example, are still rare. The observatory provides case studies of concrete initiatives, such as a Danish hospital's strategy to deal with extreme weather events, a German community's action on vector control, or a collaborative programme in Finland to reduce youth anxiety about climate change.

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What place is there for health equity in the response to the climate and biodiversity crisis?

Dr Tracey Cooper, Chief Executive of [Public Health Wales](#), UK

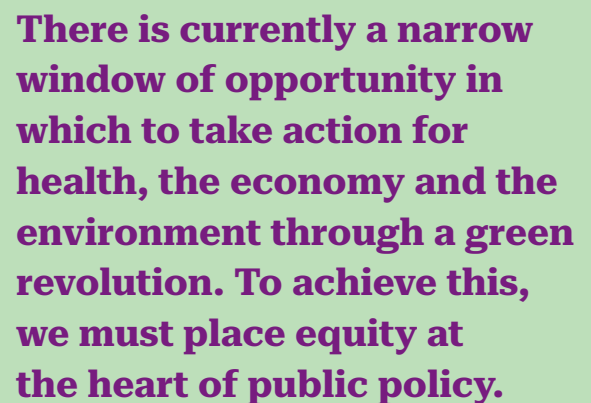
We can explore this issue through the lens of COVID, given that, like climate change, this pandemic is a major public health event. The COVID-19 pandemic has impacted populations, exacerbating underlying problems of inequality and inequity. In this sense, it is a syndemic – the interaction of several diseases and individual, environmental and social determinants – rather than a pandemic.

In Wales we have a WHO collaborating centre on Investment for Health and Well-being. We published a report in March 2021 on addressing health and equity in the aftermath of the COVID-19 pandemic through interventions on health services, income security, social protection, employment, working conditions and living conditions. The most vulnerable populations were quickly identified and targeted by policies: young people, children, ethnic minorities, socially disadvantaged and marginalised groups.

Today, Wales faces three essential public health challenges: COVID, climate change and Brexit. We have carried out an assessment of the health impacts of these three issues considered in a coherent and synergistic way. This has led us to identify key determinants that will be impacted: well-being, food security, environmental health, employment and working conditions. Specific populations will be affected, for example rural communities, farmers, fishermen, people on low incomes, youth and children.

There is currently a narrow window of opportunity in which to take action for health, the economy and the environment through a green revolution. To achieve this, we must place equity at the heart of public policy.

In Wales, we have the Well-being of Future Generations Act, which signifies clearly that the decisions of today affect the generations of tomorrow. A commissioner also holds the government accountable for its decisions. For that, we present results regarding the social returns on investment of the measures proposed.



There is currently a narrow window of opportunity in which to take action for health, the economy and the environment through a green revolution. To achieve this, we must place equity at the heart of public policy.

Outlook

Translating these lessons into public policy



Click on the image to watch the video replay

What are the main messages of the conference?

Sébastien Treyer, Executive Director of the [Institute for Sustainable Development and International Relations \(IDDRI\)](#)

We have seen striking concrete actions linking health and environmental issues, tackling adaptation and mitigation. Action to protect the environment is also action on health.

Many speakers stressed the importance of inter-sectoral intervention, the co-benefits across various dimensions of public action and the different ways of mobilising stakeholders from the private sector and citizens on the ground.

When trying to bring about ambitious agreements for environmental protection at European and international levels, we need health to drive actions that trigger transformation and mobilise the public. Without a doubt, we could also use the health argument to boost much-needed mobilisation among the private sector, politicians, non-governmental organisations, trade unions and the ministries in charge of sector-specific policies.

Action to protect the environment is also action on health ... The issue of health is central to demonstrating that environmental action is socially progressive.

Today, at the international level, key issues of public health, occupational health and nutritional health do not carry enough weight in important agreements, such as the unilateral UN Convention on Biological diversity, or the Farm to Fork strategy. However, it appears that we need to protect the health of both farm workers and the general population by changing the agricultural model, without creating an opposition between these two actions.

Another key issue is inequality. All proposals for climate protection, decarbonisation trajectories or transformation of the agricultural system stumble against objections to rising prices and job losses in certain sectors. It is essential to demonstrate that the impacts of inaction are extremely unequal and that it is the poorest populations that are most exposed to climate risks and pollution. We also need to prove that food consumption patterns have to change. The issue of health is central to demonstrating that environmental action is socially progressive.

Finally, health is a way to mobilise and raise awareness among citizens. In this respect, working at a regional level is extremely important, because the various initiatives we have learned about, linking adaptation, mitigation and nature in the city, are evidence that modes of grassroots action are possible. It is useful to conceptualise collective and individual action as not being opposed, to demonstrate that the citizen is not alone and that responsibilities are shared.

**Jean-Christophe Comboroure, Associate Deputy Director,
Sub-Directorate for the Prevention of Environmental and Food-Related Risks,
Directorate General for Health, France**

Climate change is a major public health issue, as well as a driver of health inequities. Strong public health systems that take into account the changing environmental challenges must therefore respond to these issues.

Policies and actions to achieve climate neutrality and a decarbonised, clean-energy economy will have direct short-term health benefits.

Faced with this truth, France has employed a specific adaptation strategy since 2011, when it launched the first national plan for adaptation to climate change. In parallel, France adopted its first national low-carbon strategy in 2020. It describes the implementation roadmap for a climate-change mitigation policy. It also provides guidelines for the transition to a low-carbon economy in all sectors of activity, defines short- and medium-term targets for reducing greenhouse gas emissions, and sets out two ambitions: to achieve carbon neutrality by 2050 and to reduce the carbon footprint of the French population. The national low-carbon strategy is one of the two components of French climate policy, alongside the national climate-change adaptation plan.

Work on the France's future energy and climate strategy has just begun and was the subject of a public consultation, which ended in February 2022. This future strategy will form France's collective and updated roadmap for achieving carbon neutrality by 2050 and for ensuring that French society adapts to the impacts of climate change. It will consist of the first energy and climate planning law, the third edition of the national carbon strategy, and a review of the national climate-change adaptation plan.


The Ministry of Health is giving priority to six issues, three of which are part of the national low-carbon strategy and three of which are part of the national climate-change adaptation plan.

In terms of mitigation, the hospital and social care sector are believed to be responsible for 12% of greenhouse gas emissions. Renovating buildings, incorporating energy efficiency strategies and using low-carbon energy are priority actions. The Ségur de la Santé health-sector reform consultation supported the implementation of a sustainable development policy in health and social-care institutions. Energy performance advisors will be available to support institutions in their efforts to reduce their carbon footprint. The national budget to recruit these advisors is set at 10-million euros per year until 2024.

Healthy and sustainable food is also a priority issue. Based on the proposals of the Citizens' Climate Convention, the Climate and Resilience Act (*loi Climat et résilience*) introduces a new climate dimension in the forthcoming food and nutrition strategy.

In terms of adaptation, the consolidation of resources for surveillance and alerts – both epidemiological and health-related – is currently underway. The Ministry of Health is also particularly attentive to issues related to water supply.

Finally, the Ministry of Health must set an example and will also endeavour to integrate these climate issues into its operations and those of the public institutions within its scope.



Renovating buildings, incorporating energy efficiency strategies and using low-carbon energy are priority actions.

What commitments are required from public health institutes?


Prof. Laetitia Huiart, Scientific Director of Santé publique France

Our responsibility as representatives of public health agencies is immense. We need to reduce our emissions and work on our environment, but above all this issue needs to be at the core of our actions.

Our role is to contribute to advancing the policy agenda. As scientific agencies, so we must document, understand and evaluate, quantify the benefits and propose solutions.

There is a need to change the way we work, taking a broader view and recognising that systems are interconnected, in line with the perspective of One Health. Multi- or interdisciplinary work is part of our expertise and we must further build our capacity. We traditionally work on risk factors. We must approach the subject of climate change through systemic reflection on healthy environments, addressing not only global warming, but also chronic and infectious diseases.

Finally, we need to influence research agendas. This is a major challenge, not only identifying the gaps, but also encouraging science to produce actionable knowledge. Research should help us to analyse the cascading effects of climate change, develop common indicators and evaluate current adaptation strategies. Keeping fairness at the core of our thinking is also essential. We therefore have an important role to play in translating science into public policy.



We must approach the subject of climate change through systemic reflection on healthy environments, addressing not only global warming, but also chronic and infectious diseases.

Key resources

Youth for Climate

- An expert panel organised by Youth For Climate
- Website of Youth For Climate
- Website of the international movement Fridays For Future



Find the key resources by clicking directly on the links.

Health at COP26

- COP26 health programme
- COP26 special report on climate change and health: the health argument for climate action
- Changement climatique : Santé publique France, un acteur engagé dans la COP26
- Climate change policy decision-making tool “highly commended” in COP26 Climate Challenge Cup - European Centre for Environment and Human Health | ECEHH

IPCC reports

- IPCC special report: global warming of 1.5°C – summary for policymakers
- IPCC Climate Change 2022. Impacts, Adaptation and Vulnerability
- IPCC Climate Change 2022. Health, Wellbeing and the Changing Structure of Communities – CHAPTER 7
- IPCC Climate Change 2022. Europe – CHAPTER 13
- IPCC Climate Change 2022: Mitigation of Climate Change

Biodiversity, One Health

- IPBES Pandemics Report
- One Health as a pillar for a transformative pandemic treaty

IANPHI roadmap for action on health and climate change

- IANPHI roadmap for action on health and climate change
- Public health institutes and the fight against climate change

UK climate and health strategy

- Faculty of Public Health climate and health strategy 2021-2025

Examples from Lathi, Utrecht, Athens, Grenoble

- Lahti European Green Capital 2021
- European Green Capital presents: Restoration of Lake Vesijärvi
- The Helsinki Declaration 2020: Europe that protects
- Utrecht healthy urban living
- #HeatSeason campaign
- Grenoble European Green Capital 2022
- Municipal heatwave plan for Grenoble (FR)
- Map of points for cooling off in Grenoble and ways to act during heatwaves (FR)

The European Climate and Health Observatory

- The European Climate and Health Observatory
- The Joint Lancet Countdown – EEA report
- Climate change impacts on mental health

WHO tools on adaptation and mitigation

- Heat and health in the WHO European Region: updated evidence for effective prevention (2021)
- #KeepCool campaign videos
- WHO global air quality guidelines
- AirQ+: software tool for health risk assessment of air pollution
- Achieving health benefits from carbon reductions: Manual for CaRBonH calculation tool
- GreenUr: the Green Urban spaces and health tool
- Health economic assessment tool (HEAT) for cycling and walking
- Zero regrets: scaling up action on climate change mitigation and adaptation for health in the WHO European Region. Key messages from the Working Group on Health in Climate Change (2021)

COVID-19 recovery

- Rising to the triple challenge of Brexit, COVID-19 and climate change for health, well-being and equity in Wales
- Placing health equity at the heart of the COVID-19 sustainable response and recovery: Building prosperous lives for all in Wales

Date of publication: 9 February 2023

Suggested citation: Santé publique France. Insights [Online]. Health as a lever for action on climate change; 8 April 2022, Saint-Maurice, France. Available from: <https://www.santepubliquefrance.fr>