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THE HEALTH OF THE PLANET IS OUR HEALTH

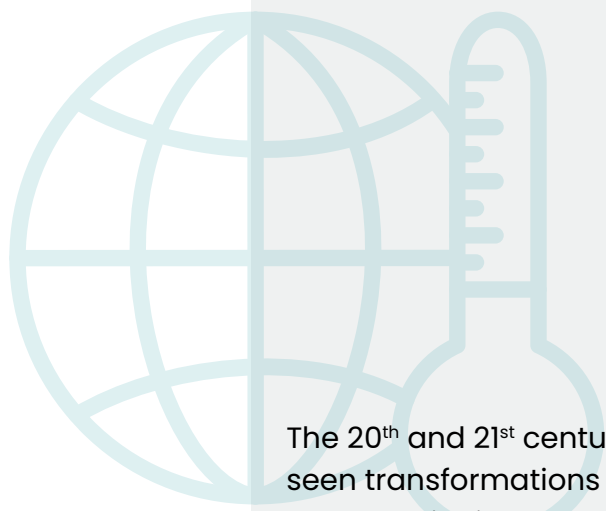
Commitment by Catalan doctors
regarding the climate emergency
and its impact on people's health

CATALUNYA

Abstract

We now know that human health cannot be separated from the health of the planet. There is a clear scientific consensus that the climate crisis is the greatest threat to health in the 21st century and that it brings with it an increase in a whole series of direct and indirect risks and impacts that are already having an effect on morbidity and mortality, as many studies have shown. The World Health Organization (WHO) reminds us that when we talk about a climate crisis we are talking about a health crisis, and this paradigm has largely inspired the 17 Sustainable Development Goals 2030 (SDGs), adopted in 2015 under the auspices of the United Nations (UN). As priorities, these goals include global health, the fight against poverty and the protection of the planet. The current COVID-19 pandemic is a clear illustration of the relationship between human health and planetary health, as well as the need to bring recovery from this crisis into line with a response to the climate crisis.

As guarantors, defenders and protectors of health and as professionals looked up to by the public, doctors have a special responsibility and can aspire to play an important role in this battle. In this document, the Council of Medical Associations of Catalonia (CCMC) publicly expresses its commitment to promoting and supporting actions to make global health and the fight against the climate emergency a public health priority.



The 20th and 21st centuries have seen transformations that have had a major impact on health, both globally and locally. These changes have affected lifestyles, the environment, work, technology, the economy and also healthcare systems. Today we know that human health is inseparable from the health of the planet, and this vision has also inspired the **17 Sustainable Development Goals 2030** (SDGs), adopted as a commitment in 2015 by world leaders under the auspices of the United Nations (UN). These put the lines of action necessary to achieve and ensure at least minimum levels of well-being for the entire world population on the international agenda. They include, as priorities, health, the fight against poverty and the protection of the planet.

The need to achieve the SDGs has become even clearer in recent years considering the effects of climate change, and as sufficient evidence has accumulated to show that **global warming** really is happening and is caused by human activity, mainly due to the use of fossil fuels that generate greenhouse gases. In 2018, the United Nations International Panel on Climate Change (IPCC) issued a

report warning of the urgent need for far-reaching measures to prevent a global temperature rise of 1.5°C, considering the magnitude of the effects this would entail. The IPCC warned of the importance of achieving a 40% global reduction in CO² emissions by 2030 and reaching a zero level by 2040, insisting on the message that the future of the forthcoming generations and humanity's own survival are at stake during the next decade. The European Union has made a commitment to reduce emissions by 50% by 2030.

In its latest report on the global state of the environment (GEO-6, 2019), the United Nations insists that a healthy environment is fundamental to economic prosperity and human health and well-being. The report shows the extent to which human behaviour has had a negative impact on biodiversity, the atmosphere, oceans, water and land, and how this severe and sometimes irreversible environmental deterioration has translated into effects on human health. The overall risks to the world's population associated with environmental deterioration and the effects of climate change generally hit disadvantaged people harder, particularly women and children, and especially people living in poverty and in low-income countries.

Unfortunately, **the emergence of COVID-19 and the pandemic** declared in 2020 have delayed efforts to declare a **climate emergency**, despite the fact that climate

change is considered the greatest health threat in the 21st century and even though we know that COVID-19 has provided an example showing that human health is inseparable from the health of the planet. The latest *The Lancet Countdown in Climate Change 2020* report starkly warns that the climate emergency and COVID-19 are converging crises with common causes and that “aligning the global recovery from COVID-19 with our response to climate change offers a triple win: improving public health, creating a

sustainable economy and protecting the environment”.

Climate change involves an increase in a whole series of direct and indirect risks and impacts on human health that are already having a negative impact on morbidity and mortality, as many studies have shown. The World Health Organization (WHO) reminds us that when we speak of a **climate crisis**, we are also speaking of a **health crisis** inseparable from it.



Attributing deaths directly to climate change is difficult because, although there are clearly identified risk factors, such as those detailed below, these variables interact with one other. The more vulnerable an individual is, whether for reasons of age (children and the elderly), socioeconomic conditions, health or geography, the more serious the impact. **WHO estimates that 250,000 more people will die every year as a direct result of climate change between 2030 and 2050**, mainly due to malnutrition, malaria, diarrhoea and exposure to extreme heat.



Rising temperatures, with more frequent heat waves, are increasing respiratory, cardiovascular and renal complications, and there are even studies showing that they affect reproduction and the mental health of the population. The extreme heat wave of 2003 caused 70,000 additional deaths in Europe, while in Catalonia, mortality rates were 53% higher than in the same weeks of 2002. We know that episodes of extreme heat are becoming more frequent and have, in fact, increased by 46% between 2000 and 2013 (*COP24 Special Report*). Moreover, eight of the ten warmest years since records have been kept were in the past decade (*The Lancet Countdown 2019*), while 2020 figures show that exposure to extreme heat caused around 350,000 deaths worldwide (*The Lancet Countdown 2020*).

250,000

WHO estimates that **250,000 more people will die every year as a direct result of climate change between 2030 and 2050**, mainly due to malnutrition, malaria, diarrhoea and exposure to extreme heat.

70,000

The extreme heatwave of 2003 caused 70,000 **additional deaths in Europe**, while in Catalonia, mortality rates were 53% higher than in the same weeks of 2002.

↑ 46%

We know that episodes of extreme heat are becoming more frequent and **have, in fact, increased by 46% between 2000 and 2013**.



The alteration of the rainfall pattern causes more droughts and, at the same time, heavy downpours, floods and increased risk of wildfires. These extreme weather events cause natural disasters with direct, and also indirect, victims. According to WHO, the number of natural disasters has tripled since 1960, resulting directly in 60,000 deaths each year. The new climatic conditions also encourage the appearance of infectious diseases as a result of the movement towards more temperate regions of pathogens and animal species acting as vectors of transmission or primary hosts, as well as the proliferation of allergens. The first autochthonous case of dengue virus disease in Catalonia was recorded in 2019. Globally, the vector capacity of the mosquito responsible for primary transmission of this disease has increased by 10% over the last 50 years (*COP24 Special Report*).



The warming of seas and oceans raises water levels, alters marine biodiversity and causes ocean acidification, with the movement of species and organisms that generate toxic substances for humans, either directly or through eating contaminated fish and shellfish.

60,000

According to WHO, the number of natural disasters **has tripled since 1960**, resulting directly in 60,000 **deaths every year**.

2019

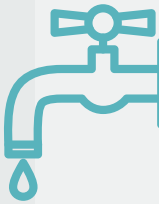
The first autochthonous case of dengue virus disease in Catalonia was recorded in 2019. The new climatic conditions encourage the movement of pathogens.

↑ 10%

Globally, the **vector capacity of the mosquito responsible for primary dengue transmission** of this disease has increased by 10% in the last 50 years.



Air pollution created by human action, mainly the use of fossil fuels, is particularly serious. According to WHO, it causes 7 million deaths each year, half of which are attributable to the presence of small suspended particles (PM2.5). These are very harmful as, in addition to causing respiratory problems, they have the capacity to pass through the alveoli and into the bloodstream. Several studies show the relationship between air pollution and cardiovascular, cerebrovascular, oncological and neurological disorders, as well as cognitive impairment. According to the European Environment Agency (EEA), air pollution currently causes some 374,000 deaths in the European Union. In the Metropolitan Area of Barcelona, it is estimated that, each year, there are 3,500 premature deaths from this cause. In addition to this air pollution, **soil and water is also contaminated by chemical pollutants and plastic waste.**



The **availability of water** for direct human use, as well as for agriculture, livestock and industry, may be limited, on one hand, by the trend of increasing global consumption and, on the other, by the global reduction in rainfall and the rise in sea level, which would affect the availability of fresh water. In many regions of the planet, water quality has deteriorated significantly over the last 30 years due to pollution by chemicals, pesticides, heavy metals, plastic and micro-plastic waste and other elements. As well as effective water quality control measures, we need to promote efficient water use, especially in agriculture, which consumes up to 90% of fresh water in the poorest countries. Restrictions on water access and availability are related to hygiene problems and the spread of disease, as well as difficulties in food production.

7 million

According to the WHO, **air pollution** causes 7 million **deaths** every year, half of which are attributable to the presence of small suspended particles (PM2.5).

374,000

According to the European Environment Agency (EEA), **air pollution** currently causes 374,000 **deaths in the European Union.**

3,500

In the **Barcelona Metropolitan Area**, there are an estimated 3,500 **premature deaths** each year **due to air pollution.**



Food availability could be severely affected by increased droughts, especially in certain regions of the world. Climate change will undoubtedly have an impact on agriculture and livestock farming, leading to the emergence of new pockets of malnutrition and undernourishment, which are already the cause of 3.1 million deaths a year, according to WHO. The organisation predicts that climate change will cause an increase of 95,000 deaths a year from malnutrition and undernourishment between 2030 and 2050.



The sum and interaction of all the factors mentioned so far, with particularly severe effects in tropical and subtropical areas of the planet, are likely to lead to the **forced migration of millions of people** in order to survive. It is enough to realise that, as the WHO reminds us, more than half of the world's population lives less than 60 kilometres from the coast, where rising sea levels are threatening to destroy housing and basic services. The care of migrants will be a challenge for the receiving countries, especially for health systems, due to the conditions of poverty and associated pathologies, including mental health disorders.



In addition, current knowledge about the effects on human health of global warming and the degradation of the earth's natural systems is still at a very early stage, and the **risks for the younger generations** and those to come in the future will be much greater than they are today.

3,1 million

Undernourishment and malnutrition already cause 3.1 million **deaths each year**, according to WHO.

↑ 95,000

WHO predicts that climate change will cause an increase of 95,000 **deaths a year from malnutrition and undernourishment between 2030 and 2050.**

+ 50%

WHO recalls that more than half **of the world's population lives within 60 km of the coast**, in areas at risk from rising sea levels.



We are, therefore, facing a **global problem with global implications requiring an immediate response**. As guarantors, defenders and protectors of health, and as professionals looked up to by the public, doctors have a special responsibility and can aspire to play an important role in this struggle. Catalan doctors feel a commitment to respond to the threat that global warming and the alteration of natural systems pose for the health and well-being of people in order to prevent the tragic effects that could occur and to mitigate and adapt to impacts that are now inevitable. This threat is already becoming apparent and there are challenges in all parts of the planet, including the Mediterranean region.

The Council of Medical Associations of Catalonia (CCMC) therefore wants to publicly express this commitment with the following statement:

1

It is time to rethink health, transforming the way we have understood it up to now. The definition of health must recognise that **human health is inseparable from the health of the planet's natural resources**.

2

The **training of doctors on global health issues and the effects of the climate crisis on public and individual health** must be strengthened, both from the point of view of prevention and care, and in terms of the ethical and deontological implications. We therefore urge academic and scientific institutions to meet this challenge. We in the professional associations are also committed to promoting this kind of training in a specific way, across all areas of learning for doctors.

3

People look to doctors for leadership in terms of health and for this reason we have a responsibility to help **educate citizens in good habits regarding both the care of their own health and the care of the planet**. We must be active agents in raising awareness, among professionals and society in general, that the health of the planet also means the health of people, and that everyone's actions are important.

4

Our principal mission is to protect health and we therefore **urge local, regional, national and European governments and administrations and international organisations to begin to legislate, make immediate agreements and take measures that will help slow down climate change** and move us away from the emergency situation. Among these measures, a strategy for energy transition to reduce carbon-rich gas emissions is a priority. The concept of global health also needs to be incorporated in legislation and in all public policies. We doctors offer our full cooperation in as far as our knowledge and our role can be useful in achieving these objectives.

5

Being leaders in terms of health offers us the opportunity to become a **model for civil society** (citizens, companies, organisations and so on). We take on this role wishing to set an example with our actions and individual and collective positions that contribute to generating greater awareness and more social involvement in the fight against the climate crisis and its effects. At the medical associations, we are committed to monitoring and reducing our emissions and green footprint.

6

The effects of the climate crisis force us to **adapt our health infrastructures and resources to new needs and emergency situations** to prevent and mitigate negative impacts and adapt to irreversible changes. We will have to treat more patients with rare and little-known diseases, respond to epidemic outbreaks, care for more migrants arriving in very precarious conditions and so on. Already strained public healthcare systems will have to be prepared for the prevention, diagnosis and treatment of new diseases. In addition, new public health strategies will have to be designed and these services will have to be strengthened.

7

We know that the **most disadvantaged individuals and populations are more vulnerable to the effects of climate change on health** and that it will accentuate social inequalities. Some people will require special protection, whether because of their age (children and the elderly), their state of health (chronically ill or with serious disorders), their geographical location or, most importantly, their poverty. Doctors' must ensure that these people's right to health is guaranteed.

8

Considering the risks posed by the climate crisis, measures must be taken and decisions made in many areas, always based on knowledge. It is therefore essential to **provide solid support for research in order to measure risks and find global solutions to new health needs**, as well as responses to emergency situations, which will often require knowledge sharing. Progress also needs to be made in meeting the great challenge of research to find less polluting alternatives for production, transport, and so on.

9

The healthcare sector itself is a major source of greenhouse gas emissions and other waste generation. In high-income countries, it is estimated to be responsible for 4-10% of global CO₂ emissions (*The Lancet Countdown 2020*). Doctors can lead the promotion of policies to reduce this impact, as well as promoting changes towards less polluting practices in as far as these do not affect quality of care. We also have the opportunity to promote the creation of healthy spaces and environments at healthcare centres, as well as helping improve urban environments by promoting strategies such as sustainable mobility for users and professionals.

10

As prescribers, doctors have the duty to promote and ensure the **responsible consumption of health resources and drugs**. As infectious diseases are expected to increase, it is particularly necessary to reduce the inappropriate use of antibiotics, with the dual benefit of fighting the emergence of new resistant strains and reducing the negative impact on the environment.

The Council of Medical Associations of Catalonia we encourage professionals and medical and health organisations around the world to collaborate and establish **alliances to protect people's health** from the effects of the climate emergency. Beyond healthcare in the strictest sense, we also offer our cooperation to organisations, institutions, administrations and other professional groups.

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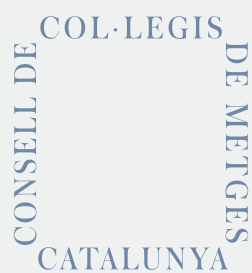
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