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T7 Task Force Climate and Environment

POLICY BRIEF

CLIMATE CHANGE AND HEALTH

21.04.2022

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Abstract

The effects of climate change, identified as the biggest threat to global health in the 21st century, are already affecting health and well-being adversely, and impacts will aggravate in the future with drastic outcomes. Therefore, the inclusion and discussion of climate change and health as a priority of the German G7 Presidency is urgently needed. The G7 have the unique opportunity to increase ambition and demonstrate leadership in this area and pave the way for the transition towards climate resilient and environmentally sustainable, climate-neutral health systems. To safeguard health in a changing climate and to prevent worse effects, investments in workforce training, integrated surveillance, monitoring and early-warning systems, and adaptable and resilient governance structures are needed. Additionally, more and robust financing mechanisms are necessary to mobilise resources to prevent, prepare for, detect and respond to climate change related health risks that will increase in the years to come. While adaptive measures are imperative to safeguard human health in the prevailing climate crisis, governance for cross-sectoral climate mitigation is the way to effectively tackle the root causes of climate change and its impact on health. In this policy brief, we recommend that the G7 lead the transition towards climate resilient and sustainable, climate-neutral health systems, building on existing initiatives such as the COP26 Health Programme and committing to transforming their own health systems, as well as supporting other countries – especially low and middle-income countries (LMICs) – in this transformation. We recommend that the G7 invest in integrated climate change and health surveillance, monitoring, early-warning systems and joint strategic foresight. Moreover, capacity building and training of the current and future health workforce is needed. Finally, the G7 could promote integrated financing of climate action in the global health architecture.

Challenges

Climate Change is the biggest threat to global health in the 21st century(1). The new Intergovernmental Panel on Climate Change (IPCC) WG II report warns: ‘the cumulative scientific evidence is unequivocal: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all.’(2)

Globally, climate change dramatically impacts on human health as well as health systems (3). Climate related direct and indirect health impacts lead to increased morbidity and mortality(2,3,4). Direct impacts arise from damages and illness due to increased frequency and severity of extreme weather events such as storms, floods and heatwaves. Environmental system mediated impacts such as pollution of air, water and soil, and changing patterns of vector-, food- and water-borne diseases affect health and well-being adversely. Furthermore, socially mediated impacts on social and human systems, such as health effects resulting from malnutrition, occupational heat stress and mental illness, as well as population displacement affect people’s health adversely, slow economic development and aggravate poverty. On the other hand, mitigation and adaptation policies can have a positive impact on health. One example is the positive impacts of reducing air pollution: the IPCC states ‘the economic benefits on human health from air quality improvement arising from mitigation action can be of the same order of magnitude as mitigation costs, and potentially even larger’(5). The climate crisis is already affecting everyone, everywhere. According to the World Health Organization (WHO), ‘every year, environmental factors take the lives of around 13 million people’ (6). Climate change reinforces entrenched global inequalities. Those who suffer the most from intersectional barriers (racialised identities, gender, age, sexual orientation, income, disability) are those who are most affected both by climate change itself and the downstream effects of the lack of integrated climate and health policies (2).

The new IPCC WGII report states with high confidence that ‘key infrastructure systems including sanitation, water, health, transport, communications and energy will be increasingly vulnerable if design standards do not account for changing climate conditions’ (2). Therefore, the climate crisis will challenge health systems with new dimensions of health risks, including frequently recurring climate related hazards such as droughts, floods, heat waves, climate-sensitive diseases, and effects of migration and conflicts (6,7,8). Such health impacts and system strain and shocks already challenge health systems to respond to higher and modified health needs while maintaining their performance (10).

Since climate change can be seen as a process with different acute, intermediate and long-term effects in different settings, climate change-related hazards can have an immense and immediate impact on all functions of a health system. Therefore, strengthening health systems and their resilience needs to be a

cumulative process to improve health service performance in short (months), medium (up to 5 years) and long-term time frames (decades). The global health architecture as well as health systems worldwide are neither equipped nor financed to cope with these challenges. They are also lacking resources to reduce their own contribution to global warming with its detrimental health effects. The COVID-19 pandemic and the resulting challenges for health systems have impeded progress on the transformation towards climate resilient, environmentally sustainable and climate-neutral health systems. For example, the use of personal protective equipment has increased waste from health care facilities (11).

The health sector accounts for 4-5% of global emissions (12) and therefore needs to reduce its own footprint. A rapid transition to climate resilient and environmentally sustainable, climate-neutral health systems is crucial to reduce negative impacts and risks to health and the environment, while maintaining quality of and access to health services and patient safety.

The German G7 Presidency follows the United Kingdom (UK) and Italy in putting ‘Climate Change and Health’ on the G7 agenda. This is an opportunity for G7 countries to strengthen health systems and transform these towards climate resilient and environmentally sustainable, climate-neutral health systems by building on existing initiatives, increasing their ambition and demonstrating leadership to protect the health and well-being of all, including the health of future generations. After all, as stated by the Lancet Countdown: ‘tackling climate change could be the greatest global health opportunity of the 21st century’ (13).

This policy brief aims at providing recommendations to G7 countries on how to address climate change’s impact on health and health systems and give ideas on how to lead the way in the transformation of health systems. We are providing input for the G7 processes, including the meeting of the G7 health ministers in May 2022 and the resulting declaration, its implementation and accountability.

Proposals

Lead the transition towards climate resilient and environmentally sustainable, climate-neutral health systems

Climate resilient and environmentally sustainable health care facilities “anticipate, respond to, cope with, recover from and adapt to climate related shocks and stresses, while minimising negative impacts on the environment and leveraging opportunities to restore and improve it, so as to bring ongoing and sustained health care to their target population and protect the health and well-being of future generations” (14).

In the context of the COP26 Health Programme, led by the UK COP Presidency, the

WHO and the non-governmental organization ‘Health Care Without Harm’ (15,16), more than 50 countries (including the UK, the United States of America, Canada and Germany) made commitments, including commitments to climate resilient, sustainable and low-carbon health systems (17). Fourteen countries (including the UK) also committed to transforming their health systems to net-zero emissions by a set year (17). The G7 could build on this initiative, lead by example through their own commitments and implementation and strengthen efforts to support countries in their commitment to and implementation of the COP26 Health Programme, including a set year for net-zero emissions of their own health systems. In a recent WHO survey, only about a fourth of responding LMIC governments reported receiving funding to support work in climate and health, which is urgently needed for their mitigation and adaptation efforts (18). For the G7, four principles to support the transition towards climate resilient and environmentally sustainable, climate-neutral health systems are relevant: Firstly, reducing climate related vulnerability, especially for vulnerable populations; secondly, reducing emissions to reach climate neutrality; thirdly, developing specific climate resilient system capacities; and fourthly, developing and implementing health in all policies¹ that benefit climate change mitigation and adaptation. To do so, action and investment in all health system building blocks are necessary (see figure 1) to build climate resilient health systems anchored in Universal Health Coverage (UHC). Health equity and climate justice should be considered as integral elements of policies and implementation concerning mitigation and adaptation in the health sector. Additionally, the absolute and physical limits to economic growth pose a challenge with regards to future decisions on how to finance and structure the health sector and health services (19).

According to a recent WHO survey, only 27% of 95 responding countries have conducted assessments regarding their health care facilities’ climate resilience (18). To track progress on the implementation of commitments to reduce emissions, joint indicators for monitoring and evaluation, (e.g. through emission control systems, including baseline and follow-up assessments of emissions of the public health and health care sector) could be developed. Furthermore, the G7 could regularly foster cooperation and knowledge sharing between countries and their health institutions. To accompany these processes and

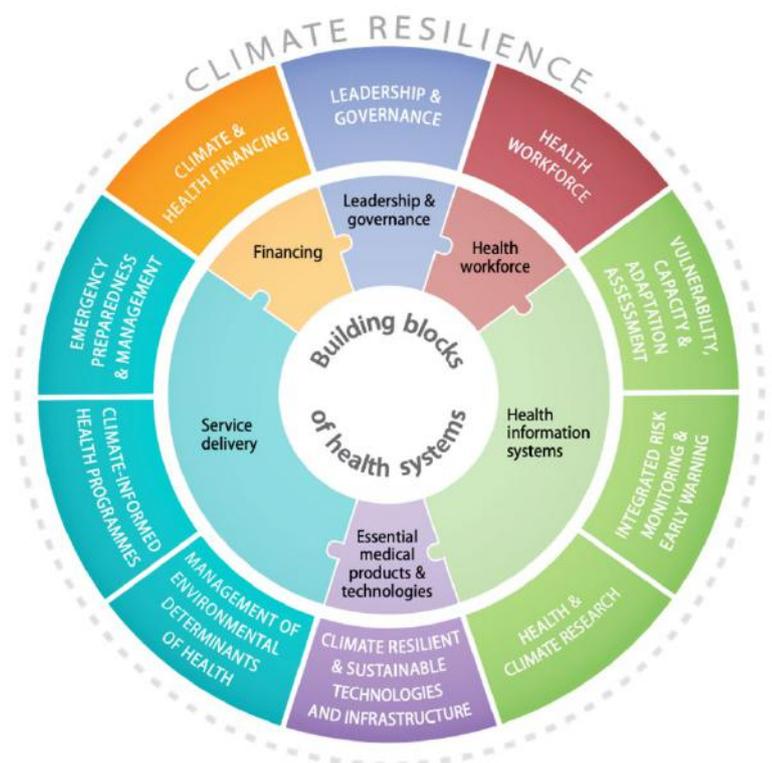


Figure 1 Ten components comprising the WHO operational framework for building climate resilient health systems, and the main connections to the building blocks of health systems, taken from Operational framework for building climate resilient health systems, World Health Organization, 2015

increase impact, joint investments in interdisciplinary and action-oriented research and knowledge translation is necessary in order to inform evidence-informed implementation of policies towards climate resilient, environmentally sustainable and climate neutral health systems.

Invest in integrated surveillance, monitoring and early-warning systems

In addition to climate resilient and environmentally sustainable, climate-neutral health systems, adaptation to the impacts of climate change is a key issue for the G7 countries' transformation to climate neutrality. Since climate change related challenges differ geographically and coping capabilities of health systems vary between countries, regions and income-levels, an important building block for adaptation is information on national and local vulnerabilities. It is necessary to tailor resources to effective and context specific solutions. Furthermore, information is needed on increased system capacities to respond to climate-related health system shocks and other health emergencies in the future. To do so, environmental and meteorological data needs to be better utilised and linked to health information systems; however, health surveillance systems that integrate climate change are often not available. Many low-income countries do not have weather stations or access to international satellite information that can be linked to health data (3). In addition, linking health and environmental data is complex, needs multidisciplinary competencies and a specifically trained workforce in all parts of the health system. Integrated risk monitoring and early warning vulnerability and adaptation assessments (V&A assessments) can support climate sensitive health information systems but are not yet widely used in health system planning. According to the 2021 WHO health and climate change global survey report, less than 40% of responding countries had integrated weather and climate information in their health surveillance systems (18). For integrated risk monitoring and early warning systems, relevant actors in these fields (e.g. WHO, UNEP, national public health institutes, environmental agencies, meteorological services) need to be supported to develop analytical capacities and incentives for collaboration. All health and environmental data should be broken down by gender and socioeconomic indicators, and reflect intersectional barriers in order to identify population groups that are disproportionately affected, and act accordingly.

Additionally, the recent IPCC WG II report states that 'health and well-being would benefit from integrated adaptation approaches that mainstream health into food, livelihoods, social protection, infrastructure, water and sanitation policies requiring collaboration and coordination at all scales of governance (very high confidence)'(2). Therefore, a planetary health in all policies approach could be pursued both at national as well as international level, including equity and justice considerations, with benefits for both climate action and human health and well-being. Although some countries already have coordinating mechanisms regarding climate and health in place which include health determining sectors (18), an encompassing planetary health approach is yet to be widely integrated. Actors within countries and institutions need to be

connected and interlinked for this approach, and cooperation as well as joint work between the respective international organisations and sectors need to be coordinated and facilitated.

Invest in capacity building and training of the current and future health workforce

Capacity building is needed to a) monitor and anticipate changing climate-related health risks; b) analyse and communicate these risks; c) prevent, respond to, manage, and cope with uncertainty, adversity and stress; d) adapt operations to changing risk conditions; e) recover from climate change-related shocks with minimal external support; and f) learn from the health service's own and others' experiences and improve system capacity, especially the workforce, for the future (3). Capacity building and continuous training of the health workforce needs to be supported to increase health system resilience and readiness. Climate related hazards such as extreme weather events do not only have massive impacts on health facilities. They also result in challenges related to working conditions, occupational health and safety, and ultimately jeopardise the delivery of care. Therefore, qualitative and quantitative investments in the workforce, health sector employment and organisational capacity to effectively respond to and maintain care during climate related hazards are needed.

Building climate resilience in the workforce requires integration in curricula for all health professions (3,20), and continuous professional training and education linking climate change risks to health. The WHO survey found that some level of training had been conducted in 42% of responding countries, however concluded that further effort regarding routine integration and comprehensive capacity building is needed (18). Contingency plans for the deployment of an adequately equipped health workforce in acute shocks (e.g. heat waves, flooding or disease outbreaks) need to be developed at the relevant level and included in V&A assessments.

Integrate and finance climate change action in the global health architecture

The global health community is recovering from the COVID-19 pandemic and drawing lessons from the response to it. This includes strengthening the role of the WHO, improvements in pandemic preparedness and response mechanisms (e.g. possible revisions of the International Health Regulations, the development of a pandemic treaty, pandemic response financing). These processes should be used as opportunities to integrate action on climate change and other environmental impacts should be considered. For example, proponents of the treaty urge policy-makers to address potential pandemic sources using the concepts of One/Planetary Health and 'deep prevention' to include antimicrobial resistance (AMR), zoonoses, climate change (and necessary adaptation and mitigation) and accidental pathogen release in the discussion of a new pandemic treaty (21,22). Implementing a Planetary/One Health approach can link human, animal, and environmental health by harnessing multi-sectoral collaboration (e.g. to establish integrated surveillance

systems), avoid duplication and work complementary and effectively to address cross-sectoral challenges of AMR, food insecurity and climate change. Since a pandemic treaty is currently discussed under the WHO Constitution, the WHO would need to govern health in and with other regimes, e.g. animal health, environmental issues and biodiversity loss (23).

Strengthening the WHO is one of the priorities of the German G7 Presidency. While it is crucial to set the WHO up for future pandemic prevention, preparedness and response, the WHO should also be supported to work on climate change related long-term and major health - and more broadly planetary health - risks. Concerning both mitigation and adaptation, a strengthened WHO could provide support to countries through norm and standard setting, guidance, coordination and technical support, as well as monitoring at an international level. To fulfil these major tasks, in essence the provision of global public goods for health, the WHO needs to be equipped adequately, and funding in this area should be mobilised and sustained. Funding for the implementation of the COP26 program, more specifically support for LMICs in their transition to climate resilient, environmentally sustainable and climate neutral health systems needs to be mobilised and sustained.

Implementation

Lead the transition towards climate resilient, environmentally sustainable and climate neutral health systems

The G7's previous commitment to climate resilient health systems (especially the 2017 G7 Health Minister Communiqué) needs to be reaffirmed and the ambition and speed of implementation in G7 countries increased, along with support for partner countries. High-income countries - such as the G7- should lay out roadmaps to climate resilient, environmentally sustainable and climate neutral health systems with clear and ambitious targets for climate neutrality. Additionally, to support the implementation of existing commitments, especially of countries in the Global South, the G7 could support the COP26 Health Programme and the respective implementing countries through financing, technical support and capacity building. The G7 could additionally facilitate best practice sharing, knowledge-exchange and capacity building by supporting agencies such as the WHO to coordinate and support dialogues.

Invest in integrated surveillance, monitoring and early-warning systems

The previous commitment of the G7 to strengthen integrated surveillance systems and promote the use of integrated early warning systems needs to be further supported and implemented. It should not be limited to infectious diseases, but also cover heat related mortality and health impacts of extreme weather events

(18).

Because national perspectives dominate, future projections often have blind spots. Collaboration with partners from different regions and cultures can help raise awareness of inter-, transnational and global developments. Through joint strategic foresight and as a group of like-minded states, the G7 could include non-state actors and international organisations in foresight and response to increase the diversity of perspectives. A multilateral and multisectoral foresight process could build trust and a common understanding of climate change and health (24). The G7 could be the place to jointly conduct strategic foresight on climate change-related risks to health, which had previously been proposed in the 2017 Health Ministers' Communiqué in the context of air pollution, which could now be broadened. This could take place in form of joint capacity building on emerging climate and health risks, including scenario exercises or simulations. The G7 could include workforce considerations into their strategic foresight. To promote interdisciplinary research to inform evidence-based implementation, the G7 could enable linkage in this area, such as through networks like the International Association of National Public Health Institutes (IANPHI). An IANPHI working group launched a roadmap for Action on Health and Climate Change at COP26 and positioned itself as future key climate actors in translating science into policy and practice (25). This effort could be elevated by the G7.

Integrate and finance climate change in global health architecture

To equip the WHO adequately to assist countries with climate change and planetary health related expertise, the G7 countries could, in line with the previously recognised 'strategic priority of WHO leadership to address the health impacts of climate and environmental factors', commit to enhanced and sustained funding for the WHO in this area. The G7 countries could be strong voices for inclusion of climate and health and planetary health considerations in existing and currently discussed mechanisms, such as the IHR, the pandemic treaty and the COP26 Health Programme. A G7 working group could explore, assess and coordinate G7 activities to support the implementation of the COP26 Health Programme, especially in and with LMICs, for example by financially supporting the global net zero health systems platform that will be established.' (26)

G7 countries could share good practises and initiatives for streamlining planetary health in all policies domestically, share the progress of the previously committed cooperation between health ministers and climate and environment ministers in the 2021 G7 Health Ministers' Communiqué, and exchange experiences in facilitating intersectoral approaches within countries. One example could be the implementation of the new WHO Global Air Quality Guidelines, which align with the repeated G7 commitment to clean air. Additionally, at the international level, cooperation such as *Quadripartite* (formerly know as *Tripartite Plus*) could be strengthened and expanded to address planetary health efforts and consider further partnership of organisations, especially in proactively sharing information, samples and data. Finally, international climate

finance for mitigation and adaptation could be used for and be accessible for investments in climate resilient, environmentally sustainable and climate neutral (public) health systems (27).

Endnotes

¹ „Health in All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity.“
(Helsinki Statement on Health in All Policies 2013; WHO (WHA67.12) 2014. Contributing to social and economic development: sustainable action across sectors to improve health and health equity)

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We thank Dorothea Baltruks, Remco van de Pas and Arthur Wyns for their valuable reviews.



The Think7 engagement group under the German G7 presidency 2022 is jointly chaired by the Global Solutions Initiative and the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) as mandated by the German Federal Chancellery.



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