

## **REACH: Research Agenda for Action on Climate and Health**

### **Delphi Survey for Prioritization of Research Topics**

The World Health Organization is developing **REACH, a global Research Agenda for Action on Climate and Health**. REACH will establish shared, forward-looking research priorities to meet the evidence needs of policy makers, program implementers, and advocates in protecting against and responding to the health impacts of climate change.

To inform **REACH**, WHO is conducting a Delphi survey to consult stakeholders on research priorities. This document provides background information on REACH and the related Delphi process.

#### **REACH context**

Climate change is widely recognized as one of today's defining health challenges, and addressing the interlinked challenges of climate change and health is a priority for WHO. Research on climate change and health has increased rapidly alongside the expanding engagement of research institutions and health professionals in climate and health work. Countries are making meaningful new commitments to climate and health action, through initiatives like the WHO hosted [Alliance for Transformative Action on Climate and Health \(ATACH\)](#). There is a significant gap between commitments to action, and progress towards global climate and health goals. While many factors contribute to this gap, knowledge generation is one key element needed to unlock action. In the [2021 WHO global health and climate change survey](#), countries reported insufficient evidence as a leading barrier to implementing national health and climate plans.

#### **REACH goal and objectives**

Action on climate and health is a priority for WHO, as expressed in the WHO's Fourteenth General Programme of Work, the Global Plan of Action on Climate and Health, and the member country commitments made through ATACH. Enabling action towards these goals will require new research and evidence.

To guide the global research community in this, **REACH** has the following objectives:

1. Establish a shared agenda of forward-looking research priorities that can catalyze actionable research and support the translation of evidence into policy and practice.
2. Foster alignment between the research community and those who use research evidence for decision making, including communities, program implementers, and policymakers.
3. Expand the scale and maximize the impact of climate and health research funding, guiding funding partners to support research aligned with community and decisionmaker needs.
4. Advance inclusive, equitable research that centers and meets the priorities of the most at risk of climate change.

By establishing global research priorities that are driven by the evidence needs of practitioners, policymakers, local communities, advocates, and other end-users, and informed by anticipated trends in climate change, health systems, technology, and policy, **REACH** will provide a roadmap for those who fund, conduct, and inform research towards strengthening the evidence base for action on climate

change and health. This will provide research end users with the evidence needed to accelerate climate and health policies and programs. **REACH** will update WHO's 2009 [Global Research Priorities for Protection of Health from Climate Change](#) and builds on WHO's 2021 [climate and health research gaps report](#).

**REACH** is coordinated by the Climate Change and Health Unit in [WHO's Department of Environment, Climate Change, and Health](#) in collaboration with the [WHO Science Division](#) and the WHO Regional Offices and supported by the Wellcome Trust.

### **REACH process**

**REACH** is being developed in collaboration with researchers, practitioners, and policymakers from research institutions, civil society organizations, government agencies, and international institutions spanning a wide range of sectors and across all WHO regions.

The first stage of the agenda-setting process included a review of systematic reviews on climate change and health, a review of existing research agendas and agenda-setting activities in climate change and health, a scan of funder calls for research on climate and health, and in-depth key informant interviews with experts and practitioners in the field. The second stage included a series of 16 consultative workshops held in each WHO region and globally and including participation from a wide range of stakeholders. Discussion in these workshops, which were designed to identify research gaps and needs in climate change and health, generated a large number of proposed research topics for inclusion in REACH spanning the breadth of topics and disciplines at the intersection of climate and health. Following these workshops, the results of the workshops were analyzed and synthesized, resulting in the identification of 70 main research topics across seven broad research themes. The third and current stage of the agenda-setting process will be a **Delphi survey** to refine and prioritize the research topics generated during the consultative workshops.

### **REACH Delphi Survey**

The Delphi method offers a structured, iterative approach to gather insights from a large group of stakeholders. Delphi surveys are widely used in the field of global health both for strategic foresight, such as identifying emerging trends, and for research priority setting, helping to refine and narrow down long lists of potential topics. By enabling broad and inclusive participation, Delphi methods help identify areas of agreement and disagreement, synthesize diverse viewpoints, and guide groups towards convergence around shared priorities.

REACH will use a two-round Delphi process. In the first round, participants will be asked to rate and comment on the research topics identified in the consultative workshops, providing input on which research topics are important and why. In this round, participants will also be able to submit additional research topics that may be missing from the current list and that the participants consider a high priority. In the second round, participants will receive the analysis and findings from the first-round survey and then will be asked to rank the relative priority of different research topics. In this round, participants can again comment on their reasoning for prioritization or de-prioritization of each research topic.

### **Delphi Survey FAQs**

#### ***What will the Delphi process entail?***

The Delphi process will be carried out through the on-line platform Welphi, a web-based software specifically designed for Delphi processes and widely used in the public and global health community, including by WHO. Each participant will receive an individual link to participate. Upon clicking the link, participants will be prompted to create a password, which will enable them to return to the platform

at any time. The survey does not need to be completed in a single session. Responses will be saved automatically, and participants can return to the survey as many times as needed.

Each of the two Delphi survey rounds will be open for comment for 10 days, and all participants are invited to participate in both rounds. It is estimated that it will take approximately 45 minutes to complete each survey round.

***Will my responses be anonymous?***

Yes. The Delphi process is fully anonymous, and the answers provided in the survey will not be attributable to any individual. Participants will be asked to provide basic demographic information on the region they are based in and the sector in which they work. However, this information will not be linked to any identifying information about participants.

The WHO will include an acknowledgements section in the final REACH agenda, listing the participants in the consultative workshops and Delphi process. Inclusion in the acknowledgements section is optional, and participants will be asked to indicate if they would like their name listed or not.

***Will research questions be prioritized at the global, regional, or local level?***

The REACH agenda is a global research agenda, reflecting shared priorities aligned with the evidence needed for action towards global climate and health goals such as expressed in the 14<sup>th</sup> General Program of Work and WHO Global Action Plan on Health and Climate Change. The final agenda will reflect global priorities. The regional workshops and the Delphi survey will enable understanding of regional variation in research priorities; however, the final agenda will not present regionally distinct priorities and instead will present a global view of research priorities. Regional priorities can form the basis for ongoing work to develop regional, national, and thematic deep dive research agendas that support the implementation of REACH and creation of regional research collaborations.

***What is the scope of research topics included in REACH and the Delphi survey?***

REACH will include research topics across the full breadth of areas at the intersection of climate change and health (e.g., from impacts to solutions, in and outside of the health sector) and spanning the full range of research approaches (e.g., from discovery to implementation and translation). To develop an agenda reflective of the breadth of research topics, the consultative process engaged stakeholders working across diverse sectors and disciplines – from health care and public health to energy, cities, transportation, food and agriculture, communication, finance, governance and beyond, and working in research, government, policy, civil society, funder, and intergovernmental organizations. Thus, in rating and commenting on research topics within the Delphi survey, and in suggesting potentially missing topics, please consider the wide range of research and evidence relevant for action on climate and health across sectors and levels of action.

***Will REACH include discussion of research methods and research capacity?***

The current Delphi survey includes only the thematic research topics that were generated in the consultative workshops. The workshops additionally identified research methodologies and approaches that can be applied to climate and health work, and the methodological advancements and research tools and indicators that are required. This spanned topics from how to apply artificial intelligence and machine learning approaches, to how to facilitate community-led research, effectively synthesize large volumes of research, elevate Indigenous and traditional knowledge and research, and more. The workshops also identified key infrastructure required to implement REACH, such as research capacity, funding, and data access. These topics are critical and will be included in the final REACH agenda. However, they are not included in the current Delphi survey. Rather, these topics are being refined and validated through a separate consultative process.

***What are the criteria that will be used to prioritize across research topics?***

Rating and prioritization of research topics in the Delphi survey will be done according to four criteria of feasibility, actionability, relevance and public health benefit, and equity. These criteria were identified and defined during discussions in the consultative workshops and align with the WHO's guidance on priority setting criteria. For the purposes of this study, they are defined as follows:

- **Feasibility:** Is the research question answerable (i.e., is it scientifically possible and is research capacity sufficient to carry out in the coming 5-10 years)?
- **Actionability:** Could evidence from research on this topic, if it were available, be used to influence programs and policy? Is the research relevant to the current and future priorities of countries and implementing partners?
- **Public health benefit:** Does evidence from carrying out this research have substantial potential to benefit public health?
- **Equity:** Does the research question respond to inequities and have the potential to promote equity?