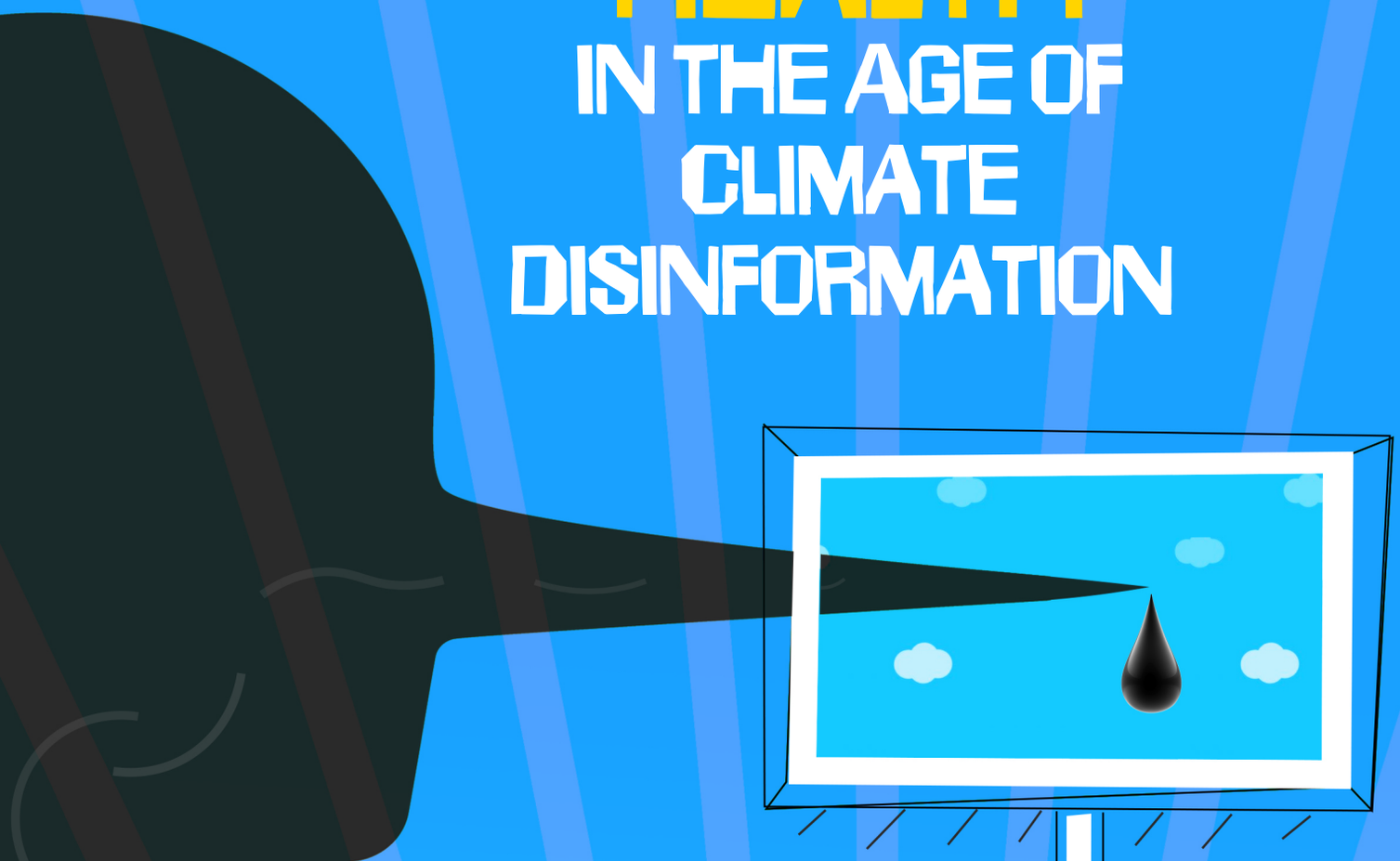
PROTECTING HEALTH IN THE AGE OF CLIMATE DISINFORMATION



Safeguarding information integrity in the context of climate change and health

A Position Paper from

WHO-Civil Society Working Group On Climate Change and Health

GLOBAL CLIMATE & HEALTH ALLIANCE

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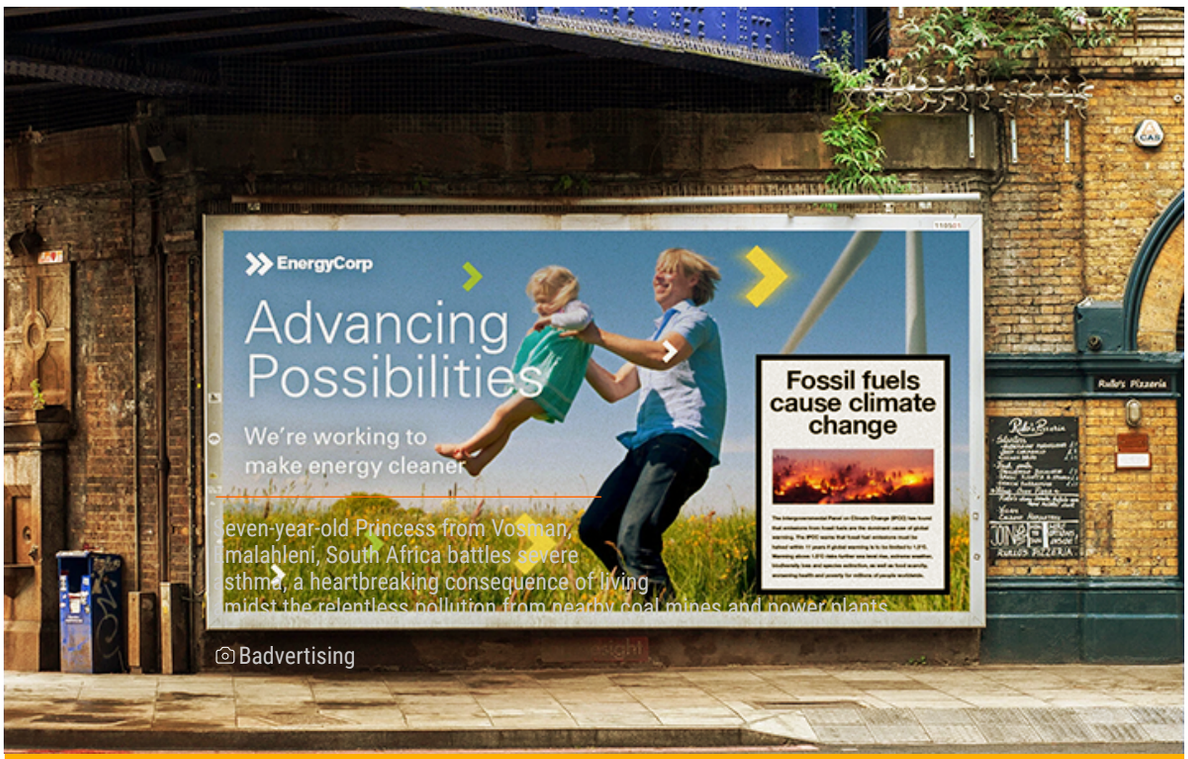
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Executive Summary

The climate crisis is already driving illness, premature death, food and water insecurity, displacement, mental distress, air pollution-related disease, and growing pressure on health systems. WHO estimates that climate change could cause approximately 250,000 additional deaths each year between 2030 and 2050 from heat stress, malaria, diarrhoea and undernutrition alone, an estimate that captures only part of the total health burden. At the same time, the information environment in which societies understand and respond to these risks is increasingly polluted by false, misleading and strategically incomplete information.

Climate disinformation must therefore be recognised as a public health threat. It can cause direct harm by confusing people during heatwaves, floods, wildfires, and disease outbreaks; systemic harm by delaying policies around fossil fuel phase-out, clean-air measures, adaptation, and investment in climate-resilient health systems; and wider societal harm by eroding trust in science, health authorities, and other credible institutions. The consequences of climate disinformation can extend beyond climate. An information environment that normalises attacks on science and public institutions can also undermine confidence in vaccines, emergency guidance, and other essential public health interventions.

Over the years, climate disinformation has also evolved. It is increasingly less about denying that climate change exists and more about delaying, distractingand dividing: claiming that action is too expensive, unfair, ineffective or harmful; presenting fossil fuels as indispensable for development and energy security; exaggerating the risks of climate solutions; promoting greenwashing and false solutions; or attacking the credibility and motives of scientists, health professionals, journalists and environmental defenders. Common techniques often include fake experts, logical fallacies, impossible expectations, cherry-picking and conspiracy theories. These tactics often exploit genuine concerns about jobs, affordability, and national sovereignty, and weaponise legitimate grievances into opposition to health-protective and urgent climate action.

The health implications are grave, tangible, and often immediate. Climate disinformation can discourage evacuation during disasters or access to disaster assistance, weaken acceptance of health guidance on heat, air pollution and extreme weather events. It can also undermine climate policies including clean-air policies and fossil fuel phase-out, and obscure the health harms of pollution. Case studies in this paper, from wildfire misinformation in Canada and Maui, backlash against London's Ultra Low Emission Zone, cascading climate and information risks during floods in South Sudan, fossil fuel greenwashing, development narratives affecting Indigenous Peoples in Indonesia, and attacks on scientists, journalists and environmental defenders, show that climate disinformation interacts with existing inequalities and power structures. Often the frontline and Indigenous communities are particularly vulnerable, while those communicating evidence may themselves face harassment, legal intimidation, gendered and sexualised abuse, or violence.

However, public health is not starting from scratch in countering disinformation. The history of tobacco control demonstrates how industries with health-harming products have manufactured doubt, delayed action, and obstructed and interfered with policy. It also shows why strong health-led conflict-of-interest protections are necessary. Additionally, COVID-19 and infodemic management efforts show that harmful information environments require deeper social listening, rapid-response infrastructure, extensive community engagement and preparedness, and the occasional fact-checking after falsehoods have spread might not be sufficient or adequate. More importantly, the vaccine confidence work also demonstrates that facts are most effective when delivered through trusted relationships. Emergency risk communication too shows that speed, clarity, accessibility and credibility are all essential in saving lives. Public health experience with health-harming product marketing

has also demonstrated that advertising and sponsorship can shape norms and social acceptance, also strengthening the case for treating fossil fuel greenwashing, advertising and sponsorship as public health concerns.

The health community has a long-standing recognition as trusted messengers because it can translate climate science into human consequences, from heat illness, asthma, cardiovascular disease, adverse pregnancy outcomes, malnutrition, infectious disease, displacement, trauma and preventable deaths. However, credibility alone is not enough. Health workers need training in climate change, air pollution, environmental health risks, and countering mis/ disinformation techniques; institutions need systems for social listening and rapid response; and communicators need to move from repeatedly debunking individual false claims to pre-bunking manipulation techniques, strengthening information resilience, and correcting without amplifying. Communication must be locally relevant, multilingual and grounded in communities' lived realities.

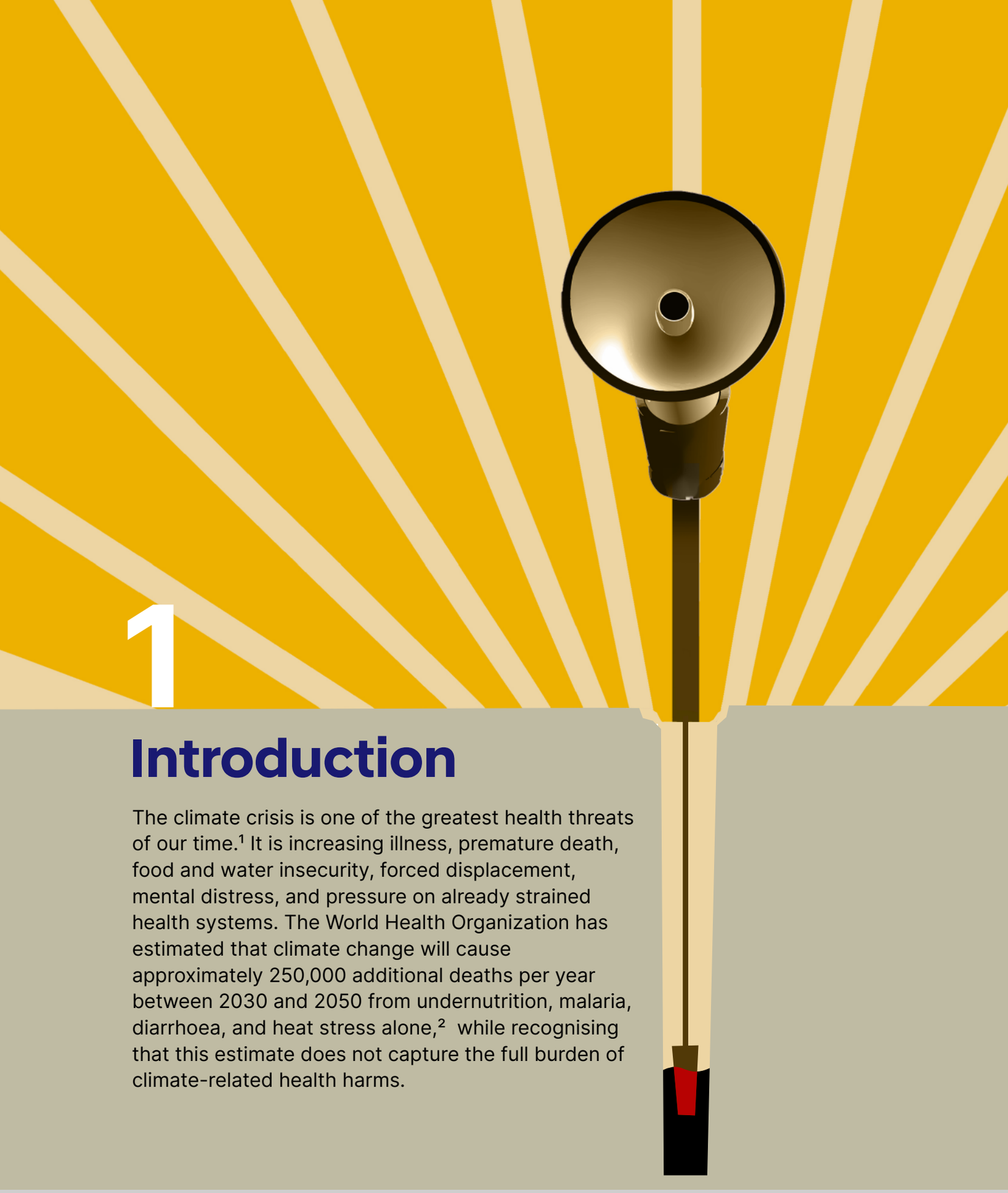
Crucially, climate disinformation is not only a content problem; it is also a problem of power, incentives and accountability. A health response must therefore go beyond better messaging. WHO, Member States, health institutions and the health community should establish robust conflict-of-interest safeguards against fossil fuel influence. Efforts should be made to increase transparency around lobbying, sponsorship, advertising, research funding, and public relations. Restrictions on fossil fuel advertising and misleading environmental claims should be supported. Governments should invest in efforts to protect independent journalism and fact-checking, and defend scientists, health workers, Indigenous leaders, journalists, and environmental defenders from intimidation and retaliation. Climate policies themselves must also be just and socially protective: communications cannot build durable trust where legitimate concerns about livelihoods, affordability and inequality are ignored.

This paper therefore calls for information integrity to become part of the core architecture of climate and health policy. WHO should recognise climate disinformation as a public health threat and develop guidance on managing the climate-health infodemic. Governments should integrate misinformation preparedness into climate-related emergency response, strengthen climate and health literacy, regulate greenwashing and protect policy from conflicts of interest. Health professional associations should train and protect their members, refuse fossil fuel-linked sponsorship and strengthen climate-health education. Health civil society should document disinformation,

support communities and build alliances across health, climate, journalism, labour, Indigenous Peoples and environmental justice movements. Finally, funders should invest in research, local-language journalism, community-led evidence, rapid-response capacity and protection for targeted messengers, particularly in low- and middle-income countries.

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A healthier information environment is not a communications luxury. It is a crucial part of the public health infrastructure. Protecting people from the climate crisis requires ensuring their ability to access credible information, trust evidence, make informed decisions and support policies that safeguard their health. Climate action and information integrity must therefore be advanced together.



1

Introduction

The climate crisis is one of the greatest health threats of our time.[1] It is increasing illness, premature death, food and water insecurity, forced displacement, mental distress, and pressure on already strained health systems. The World Health Organization has estimated that climate change will cause approximately 250,000 additional deaths per year between 2030 and 2050 from undernutrition, malaria, diarrhoea, and heat stress alone,[2] while recognising that this estimate does not capture the full burden of climate-related health harms.

[1] World Health Organization, "WHO Calls for Urgent Action to Protect Health from Climate Change —Sign the Call," 6 October 2015. https://www.who.int/news/item/06-10-2015-who-calls-for-urgent-action-to-protect -health-from-climate-change-sign-the-call

[2] World Health Organization, "Climate Change and Health," fact sheet, 12 October 2023. https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health

At the same time, the public information environment around climate change is increasingly polluted. False, misleading, distorted, or strategically incomplete information, including greenwashing,[3] about climate science, climate impacts, fossil fuels, and climate solutions is circulated across social media, traditional media, advertising, political discourse, lobbying, and community spaces.[4] It is deliberate disinformation designed to protect political or commercial interests. Many times it is more subtle than outright climate denial: it accepts that climate change exists but undermines the urgency, feasibility, fairness, or health benefits of climate action.[5]

For the health community, this is not a peripheral concern. Information integrity is central to public health.[6] People may not take the steps needed to protect themselves from heat, floods, smoke, infectious disease risks, or polluted air if they are misled about the risk they face.

Governments cannot adopt health-protective climate policies if public debate is distorted by organised campaigns that exaggerate costs, minimise benefits, attack evidence, or frame fossil fuel dependence as inevitable. Health systems cannot prepare effectively if climate hazards are politically downplayed or falsely presented as isolated natural events unrelated to human-driven climate change.



[3] United Nations, "Greenwashing – the Deceptive Tactics Behind Environmental Claims," accessed 12 June 2026. https://www.un.org/en/climatechange/science/climate-issues/greenwashing

[4] Vivion M, Trottier V, Bouhêlier È, Goupil-Sormany I, Diallo T. Misinformation About Climate Change and Related Environmental Events on Social Media: Protocol for a Scoping Review. JMIR Res Protoc. 2024 Oct 31;13:e59345. doi: 10.2196/59345. PMID: 39481105; PMCID: PMC11565082.

[5] United Nations Development Programme, "What Are Climate Misinformation and Disinformation and How Can We Tackle Them?," UNDP Climate Promise, 1 May 2025. https://climatepromise.undp.org/news-and-stories/what-are-climate-misinformation-and-disinformation-and-how-can-we-tackle-them

[6] Shweta Narayan, Mark Conway, Linda Rudolph, Jeni Miller, Natalia Linou, and Jayalakshmi Shreedhar, "The Imperative to Counter Fossil Fuel Industry Disinformation for Public Health," The ancet Planetary Health 10, no. 3 (2026): 101435, https://doi.org/10.1016/j.lanplh.2026.101435

Climate disinformation therefore threatens health in three ways.

First,
it causes direct harm during climate -related emergencies by confusing communities, delaying protective action, obstructing access to aid.[7]

Second,
it causes systemic harm by delaying necessary action on climate change and related public health priorities, including mitigation measures such as fossil fuel phase-out, as well asair pollution control, adaptation, disaster preparedness, and investment in resilient health systems.[8]



Third,
it contributes to a broader information environment that polarizes communities,[9] erodes trust in science and reliable information, and undermines evidence-based decision-making. In doing so, it can also weaken public trust in other forms of health information,[10] with consequences extending well beyond climate -related risks.

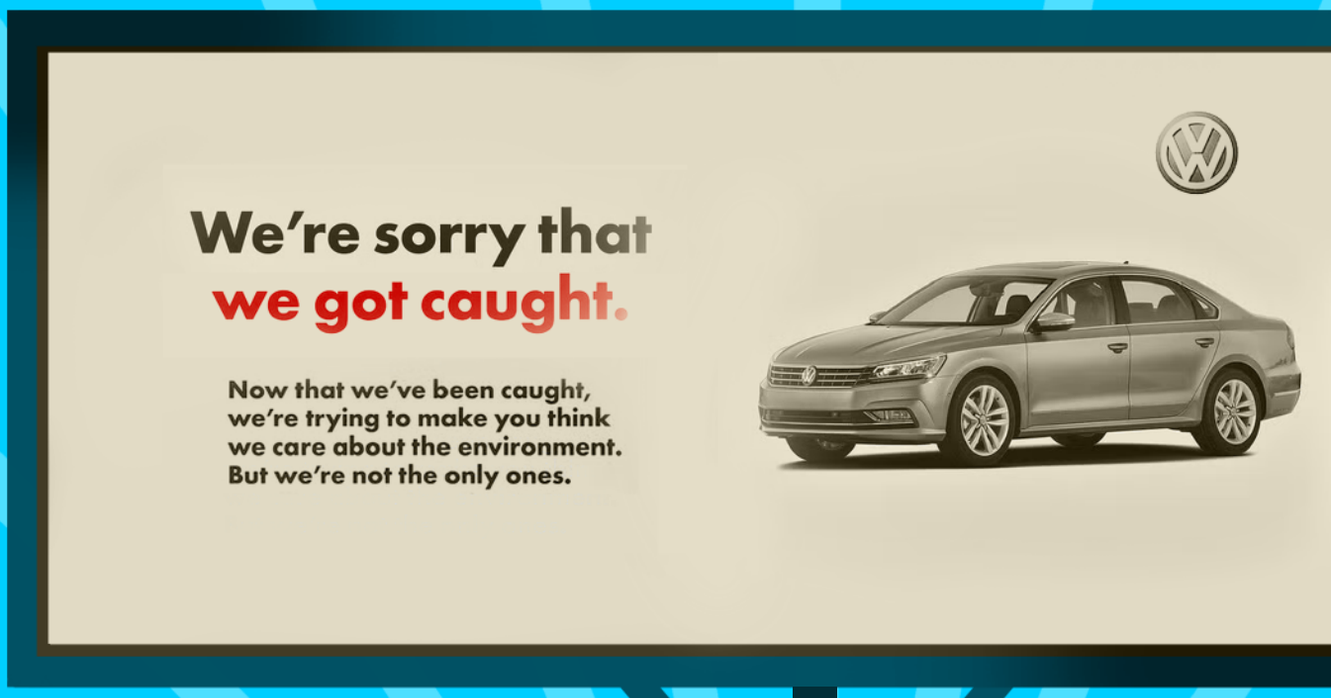
This position paper is produced by the WHO Civil Society Working Group on Climate and Health. It sets out why climate disinformation is a health issue, how it harms people and systems, what can be learned from WHO and public health experience with other forms of health disinformation, and what the health community, agencies and governments can do.

7 Conectas Human Rights, “How Disinformation Threatens the Response to the Climate Crisis,” 5 June 2025. https://conectas.org/en/noticias/how-disinformation-threatens-the-response-to -the-climate- crisis/

8 Gertrudix M, Carbonell-Alcocer A, Arcos R, Arribas CM, Codesido-Linares V, Benítez-Aranda N. Disinformation as an obstructionist strategy in climate change mitigation: a review of the scientific literature for a systemic understanding of the phenomenon. Open Res Eur. 2024 Sep 24;4:169. doi: 10.12688/openreseurope.18180.2. PMID: 39399659; PMCID: PMC11467642.

9 Global Covenant of Mayors for Climate & Energy, "Addressing rampant climate disinformation," October 2024, https://www.globalcovenantofmayors.org/wp-content/uploads/2024/10/Addressing-Rampant-Climate-Disinformation-FINAL-.pdf

10 Sarah Jackson, Ines Paiva, and Imogen Outlaw, "Understanding the global climate disinformation landscape and strengthening the EU's response", December 2025, https://newclimate.org/sites/default/files/2025-12/newclimate-briefing-climate-disinformation-decem25.pdf



2

Definitions and Scope

2.1 Misinformation, Disinformation, and Information Integrity

Misinformation refers to false or misleading information that is shared without necessarily intending to cause harm. **Disinformation** refers to false or misleading information that is created or spread deliberately to deceive, manipulate, or advance a particular agenda.[11] **Malinformation** refers to information that may be based on fact but is used selectively or out of context to cause harm.[12]

[11] American Psychological Association, "Misinformation and Disinformation," accessed June 12, 2026, https://www.apa.org/topics/journalism-facts/misinformation-disinformation

[12] Jim Greene, "Malinformation," EBSCO Research Starters, 2025, accessed June 12, 2026, https://www.ebsco.com/research-starters/information-technology/malinformation

In practice, the distinction between these categories can be difficult to establish. A false claim about heat risk may be created originally by a group with vested interests, then that disinformation is amplified by a political influencer with aligned funders before being monetize by a digital platform, at which point that false narrative gets shared innocently by a community member. This does not launder disinformation into misinformation, and for public health purposes, the key question is not only whether a claim is false, but whether it undermines people's ability to understand risk, make informed decisions, trust credible institutions, and support health-protective policy.

Information integrity refers to

"an information ecosystem in which reliable and accurate information is available to all, enabling people to engage meaningfully in public life, make informed decisions and exercise their rights. This ecosystem is shaped by the actions of a diverse range of actors, including governments, technology companies, media, civil society and individuals." [13]

2.2 Climate Disinformation

Climate disinformation[14] and misinformation refers to **deceptive or misleading content** that:

- Undermines the existence or impacts of climate change, the unequivocal human influence on climate change, and the need for corresponding urgent action according to the IPCC scientific consensus and in line with the goals of the Paris Climate Agreement
- Misrepresents scientific data, including by omission or cherry-picking, in order to erode trust in climate science, climate-focused institutions, experts, and solutions; or
- Falsely publicises efforts as supportive of climate goals that in fact contribute to climate warming or contravene the scientific consensus on mitigation or adaptation.

Climate disinformation[15] includes **false or misleading claims** about:

- the causes of climate change
- the scale, urgency, or health consequences of climate change
- the role of fossil fuels and other high-emitting sectors
- the benefits, costs, feasibility, or fairness of climate solutions
- the integrity of climate science and health evidence
- climate-related disasters and emergency responses
- the credibility of scientists, health professionals, journalists, community leaders, and environmental defenders
- the need for or value of policies such as clean air standards, fossil fuel phase-out renewable energy, public transport, low-emission zones, heat action plans, or climate finance.

[13] United Nations Department of Global Communications, From Principles to Practice: Strengthening Information Integrity, Issue Brief 1 (September 2025), https://www.un.org/sites/un2.un.org/files/un-information-integrity-issue-brief-01.pdf

[14] https://caad.info/what-is-climate-disinformation/

[15] European Commission, Directorate-General for Climate Action, "Climate Disinformation," accessed June 12, 2026, https://climate.ec.europa.eu/eu-action/climate-disinformation_en

Climate disinformation today often takes the form of "new denial."[16] Rather than denying climate change outright, it delays action by claiming that solutions are too expensive, too harmful, too elitist, too uncertain, too dependent on future technologies, or unfairly imposed on ordinary people. It also promotes greenwashing: presenting fossil fuel expansion, carbon capture, offsets, hydrogen, or voluntary corporate commitments as adequate substitutes for rapid emissions reduction and a just transition. It is important to bear in mind that climate disinformation is not driven only by actors with direct economic interests in fossil fuels. It is also weaponized by political operatives, influencers, and commercial disinformation networks seeking to polarise societies, disrupt democratic processes and monetize the fear, outrage, and division. Many of the same actors and networks that profit from vaccine disinformation also spread misleading narratives about climate change, migration, and other contested public issues. For these actors, the motivation may be less ideological than commercial, therefore for them climate disinformation forms part of a wider economy of disinformation and hate.

DISINFORMATION LIES FAKE NEWS PROPOGANDA MISINDORMATION FAKE NEWS LIES PROPOGANDA

The FLICC Framework

Five Common Techniques of Misinformation

A useful way to recognise climate and health mis/ disinformation is the FLICC framework, developed through the work of John Cook and colleagues.[18]

It identifies five recurring rhetorical techniques used to distort evidence, manufacture doubt, or undermine scientific consensus:

Fake Experts: Presenting people without relevant expertise as credible authorities, often to create the appearance of scientific disagreement.

Logical Fallacies: Using flawed reasoning, false comparisons, misleading arguments, or conclusions that do not follow from the evidence.

Impossible Expectations: Unrealistic levels of certainty or proof before accepting scientific evidence or taking action.

Cherry-picking: Selecting individual studies, data points, time periods, or examples while ignoring the wider body of evidence.

Conspiracy Theories: Claiming that scientists, governments, health institutions, or other actors are deliberately concealing the truth or coordinating deception.

These techniques are often used in combination. Recognising them can help communicators pre-bunk mis/ disinformation by explaining the tactics used to mislead, rather than amplifying the false claim itself.

[16] Nicolosi, Emily & Medina, Richard & Brewer, Simon & Vorkink, Madi & Allred, Andrew. (2025). The New Denial: Climate Solution Misinformation on Social Media. Global Sustainability. 8. 1 -26.10.1017/sus.2025.10016.

[17] Union of Concerned Scientists, "Fossil Fuel Accountability," accessed June 12, 2026, https://www.ucs.org/climate/accountability

[18] https://skepticalscience.com/history-flicc-5-techniques-science-denial.html



3

Why Climate Disinformation Is a Health Issue

Climate disinformation harms health because it interferes with the social, political, and behavioural conditions needed to protect people from climate risks. Its effects are not abstract. They can influence whether a person evacuates during a wildfire, applies for disaster assistance, protects themselves during a heatwave, supports clean air policy, trusts health guidance, or believes that fossil fuel pollution is harming their family.

3.1 It delays action on known health risks, thereby endangering health

Climate change is already affecting physical and mental health globally. The Intergovernmental Panel on Climate Change (IPCC) has concluded with very high confidence that climate change has adversely affected physical health worldwide and mental health in assessed regions, with these harms documented in the Lancet Countdown's reporting across a comprehensive set of global health indicators [19]. Delaying action increases exposure to heat, polluted air, extreme weather, food insecurity, infectious disease risks, and health- system disruption.

Disinformation that minimises climate risk or falsely suggests that climate action is unnecessary contributes to delay and any delay is not neutral. Every year of delayed emissions reduction locks in additional warming, infrastructure damage, preventable disease, and avoidable deaths.

3.2 It undermines clean air and fossil fuel phase-out policies

Fossil fuel combustion is a major driver of air pollution, which remains one of the world's largest environmental health risks [20]. WHO has estimated that air pollution is associated with around seven million premature deaths annually [21] with cardiovascular diseases, including ischaemic heart disease and stroke, accounting for a substantial proportion of these deaths [22]. Climate action that reduces fossil fuel use can therefore deliver immediate and significant health gains, improving air quality and reducing the burden of disease.

Disinformation campaigns often obscure this health benefit. They frame fossil fuel phase-out as only an environmental or economic issue, ignoring the health costs of continued extraction, combustion, pollution, and climate instability. They also present fossil fuels as indispensable, while downplaying the feasibility and health benefits of cleaner alternatives [23].

[19] Intergovernmental Panel on Climate Change, "Summary for Policymakers," in Climate Change 2022: Impacts, Adaptation and Vulnerability, ed. H.-O. Pörtner et al. (Cambridge: Cambridge University Press, 2022), 3–33, https://doi.org/10.1017/9781009325844.001

[20] BMJ Group, "Air Pollution from Fossil Fuel Use Accounts for Over 5 Million Extra Deaths a Year," 30 November 2023, https://bmjgroup.com/air-pollution-from-fossil-fuel-use-accounts-for-over-5-million-extra-deaths-a-year/

[21] World Health Organization, "Ambient (Outdoor) Air Pollution," 24 October 2024, https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health

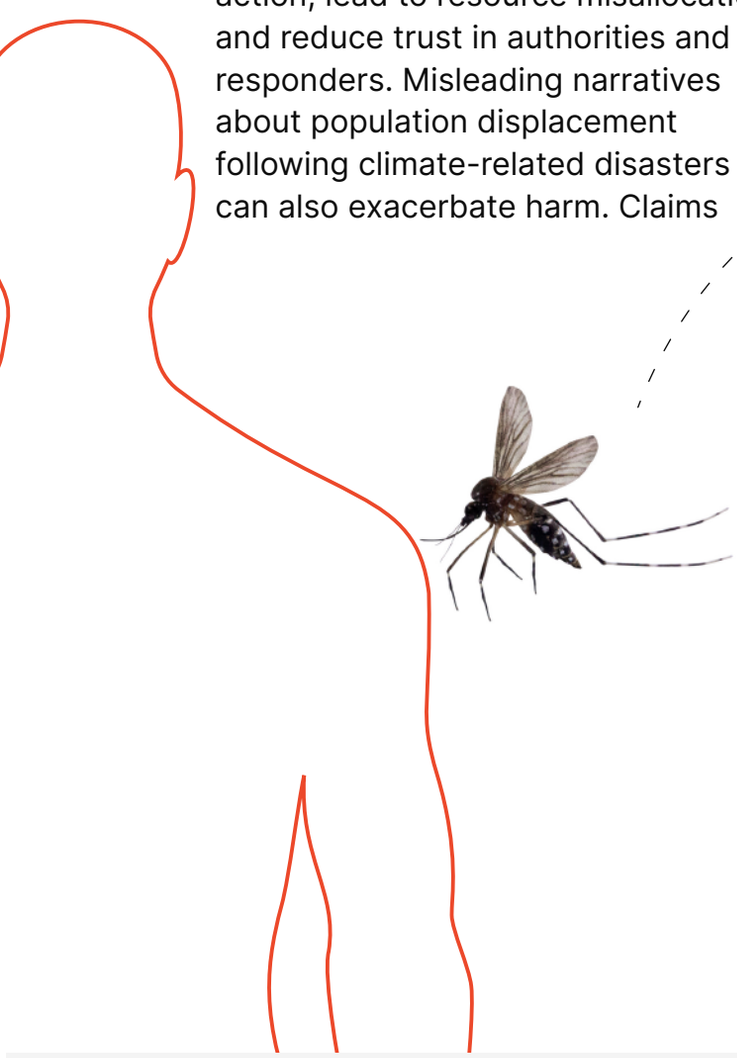
[22] Rajagopalan S, Landrigan PJ. Pollution and the Heart. N Engl J Med. 2021 Nov 11;385(20):1881-1892. doi: 10.1056/NEJMra2030281. PMID: 34758254.

[23] Jeff Turrentine, "Climate Misinformation on Social Media Is Undermining Climate Action," Natural Resources Defense Council, 19 April 2022. https://www.nrdc.org/stories/climate-misinformation-social-media-undermining-climate-action

3.3 It increases harm during climate-related disasters

During wildfires, floods, storms, heatwaves, and disease outbreaks, people need rapid, trusted, and actionable information. Disinformation and misinformation can create confusion about evacuation orders, aid eligibility, smoke exposure, heat risk, water safety, disease prevention, and where to seek care [24].

False information during disasters can worsen anxiety, delay protective action, lead to resource misallocation, and reduce trust in authorities and responders. Misleading narratives about population displacement following climate-related disasters can also exacerbate harm. Claims that climate shocks will inevitably trigger large-scale or uncontrolled migration, when presented without appropriate evidence or context, may fuel anti-migrant sentiment, reinforce exclusionary or protectionist policy responses, and divert attention from evidence-based humanitarian and protection measures needed to support affected populations. This is particularly dangerous for older people, children, pregnant women, people with disabilities, outdoor workers, migrants, Indigenous communities, and people living in informal settlements or poorly resourced areas.



[24] United Nations Office for Disaster Risk Reduction, "Common Challenge: Misinformation and Disinformation on Disaster Risk Communication—Practical Tips," PreventionWeb, accessed June 12, 2026, https://www.preventionweb.net/hubs/disaster-risk-communication-hub/do/misinformation-disinformation

3.4 | It weakens trust in health authorities and science

The health community depends on trust. Climate disinformation often targets the messengers: scientists, health professionals, meteorological agencies, public health authorities, journalists, and community advocates [25]. It portrays them as alarmist, corrupt, politically motivated, foreign-funded, or anti-development.

Many of these narratives also sit within a broader "globalist" or anti-globalist framing, in which climate action, international agreements, and public health measures are portrayed as tools used by international institutions, governments, or elites to consolidate power, weaken national sovereignty, restrict individual freedoms, or impose externally driven political and economic agendas. These narratives can intersect with similar claims in other contested areas, including gender, migration, gender, migration, vaccination, and public health regulation.

This erosion of trust does not remain confined to climate policy and can spill over into other areas of public health [26]. Communities exposed to climate disinformation may also encounter vaccine misinformation, anti-science narratives, or conspiracy theories targeting public institutions [27]. By reinforcing a broader worldview in which scientific, governmental, and international institutions are inherently untrustworthy, such narratives can weaken public confidence across multiple areas of health policy, undermine public health capacity, and expose health professionals and other trusted messengers to harassment, intimidation, and threats to their well-being [28].

[25] United Nations Development Programme, "What Are Climate Misinformation and Disinformation and How Can We Tackle Them?," PreventionWeb, 1 May 2025. https://www.preventionweb.net/news/what-are-climate-misinformation-and-disinformation-and-how-can-we-tackle-them

[26] Gilbert SG. Doubt Is Their Product: How Industry's Assault on Science Threatens Your Health. Environ Health Perspect. 2009 May;117(5):A218. PMCID: PMC2685872.

[27] Tomassi, Andrea, Andrea Falegnami, and Elpidio Romano. 2025. "Disinformation in the Digital Age: Climate Change, Media Dynamics, and Strategies for Resilience" Publications 13, no. 2: 24. https://doi.org/10.3390/publications13020024

[28] National Academies of Sciences, Engineering, and Medicine, "Attacks on Scientists and Health Professionals During the Pandemic Proceedings of a Symposium - in Brief," 2023, https://www.nationalacademies.org/read/26936/chapter/1

3.5 | It deepens inequity

Disinformation does not affect all populations equally. Communities already facing climate vulnerability, pollution burdens, chronic noncommunicable diseases such as cardiovascular disease, diabetes and chronic respiratory disease, poverty, racism, colonial legacies, weak infrastructure, or political marginalisation often have less access to trusted information and fewer resources to respond to hazards [29]. They may also be deliberately targeted with narratives that frame climate action as a threat to jobs, identity, development, national sovereignty, or energy access [30] [31].

This is especially important in low- and middle-income countries, fossil fuel-dependent regions, and frontline communities living near mines, refineries, petrochemical facilities, power plants, ports, pipelines, and waste sites. Climate disinformation can be used to divide workers and communities, discredit environmental justice movements, and delay policies that would protect health.



Seven-year-old Princess from Vosman, Emalahleni, South Africa battles severe asthma, a heartbreaking consequence of living amidst the relentless pollution from nearby coal mines and power plants.

Daylin Paul | Center for Environmental Rights

[29] Geneva Environment Network, "Disinformation, Environmental Policymaking, and the Role of Geneva," updated 25 February 2026. https://www.genevaenvironmentnetwork.org/fr/ressources/nouvelles/disinformation-environmental-policymaking-and-the-role-of-geneva/

[30] Vlado Vivoda, Lachlan Nieboer, and Rowan Bisshop, "Narrative Warfare in Critical Minerals: Information Manipulation and Governance Challenges," The Extractive Industries and Society 25 (2026): 101798, https://doi.org/10.1016/j.exis.2025.101798

[31] Conectas Human Rights, "How Disinformation Threatens the Response to the Climate Crisis," 5 June 2025, https://conectas.org/en/noticias/how-disinformation-threatens-the-response-to-the-climate-crisis/



4 Common Climate Disinformation Narratives & Their Health Consequences*

***A note on avoiding amplification:** The examples in this section are included to help readers recognise recurring misinformation narratives and tactics and not to encourage their repetition. Research on misinformation cautions that repeatedly restating false claims can increase their familiarity and, in some contexts, inadvertently reinforce them.

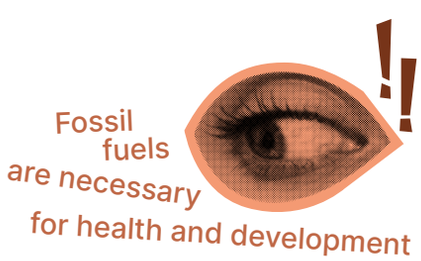
When communicating publicly, the preferred approach is to lead with accurate information, reinforce the facts and values you want audiences to remember, and address misleading claims without unnecessarily repeating or giving prominence to the false narrative itself. Where a false claim must be referenced, communicators should keep it brief, clearly identify it as misleading, and return quickly to the evidence-based message.



This narrative frames climate change as distant, solely environmental, or abstract. It ignores the immediate health consequences of heat, air pollution, infectious disease risks, malnutrition, displacement, and disaster trauma. By By separating climate from health, it reduces urgency and weakens the role of health ministries, health professionals, and health institutions in climate policy.

Health consequence:

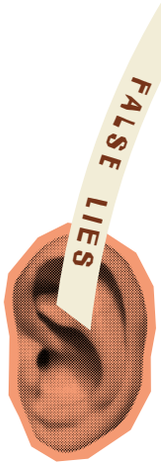
Delayed adaptation, weak heat-health planning, underinvestment in climate-resilient health systems, and missed opportunities to prevent disease.



This narrative presents fossil fuels as essential for hospitals, economic growth, energy access, poverty reduction, while ignoring the health harms of extraction, combustion, pollution, climate change, and fossil fuel dependence. It often sets up a false choice between development and health.

Health consequence:

Continued exposure to air pollution, toxic contamination, occupational hazards, climate risks, and delayed investment in clean, reliable, affordable energy systems.

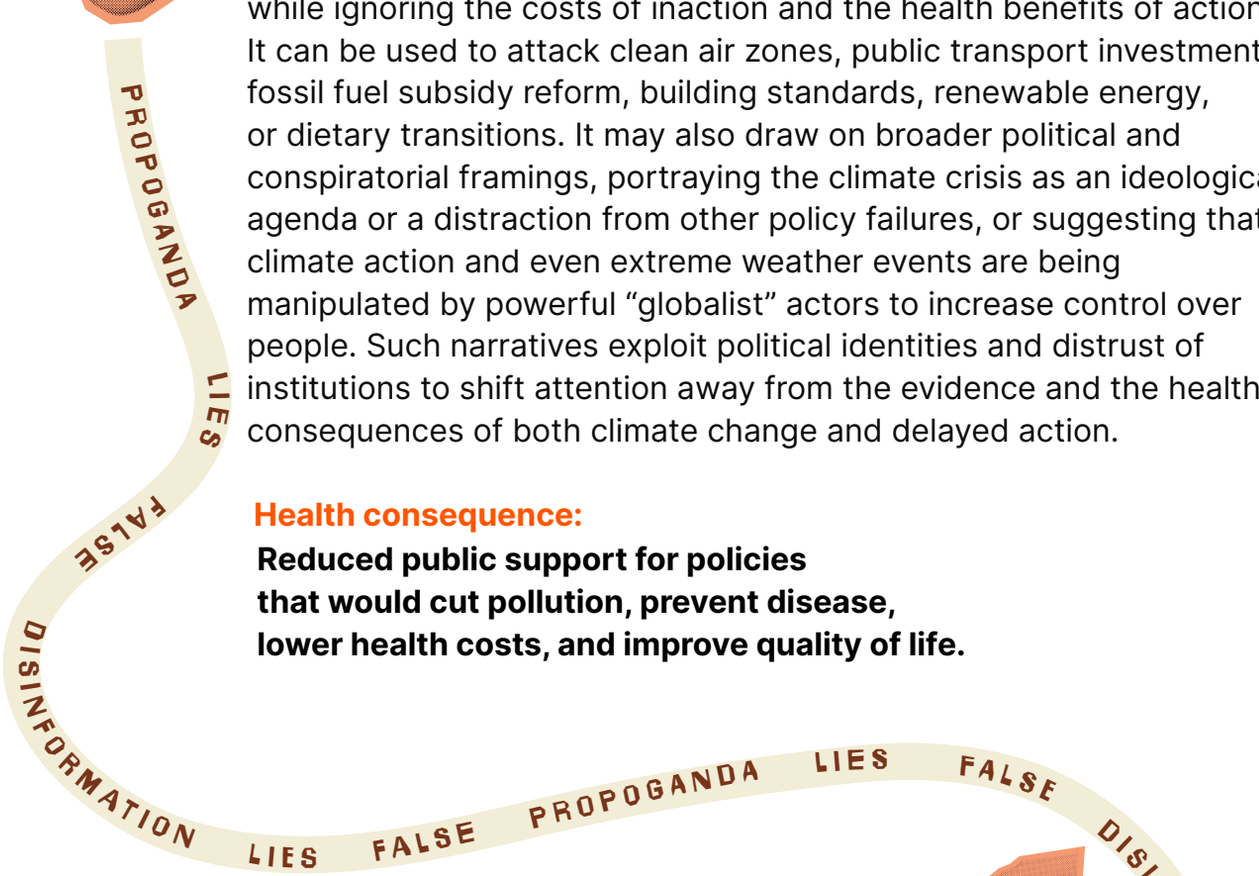


Climate action will hurt ordinary people/ widen inequities

This narrative exaggerates or distorts the costs of climate policies while ignoring the costs of inaction and the health benefits of action. It can be used to attack clean air zones, public transport investment, fossil fuel subsidy reform, building standards, renewable energy, or dietary transitions. It may also draw on broader political and conspiratorial framings, portraying the climate crisis as an ideological agenda or a distraction from other policy failures, or suggesting that climate action and even extreme weather events are being manipulated by powerful "globalist" actors to increase control over people. Such narratives exploit political identities and distrust of institutions to shift attention away from the evidence and the health consequences of both climate change and delayed action.

Health consequence:

Reduced public support for policies that would cut pollution, prevent disease, lower health costs, and improve quality of life.



Solutions do not work

This includes claims that renewable energy is inherently unreliable, that production of renewable energy is just as damaging as fossil-fuel-based energy, that electric transport is more polluting than fossil fuel transport, clean cooking transitions are impossible, low-emission zones do not improve air quality, or climate-resilien health systems are unaffordable.

Health consequence:

Policy paralysis, continued reliance on polluting systems, and delayed implementation of proven interventions.

Scientists and health advocates cannot be trusted



This narrative attacks messengers rather than engaging with the weight of evidence. It may include harassment, doxxing, abuse, or allegations that health professionals and climate scientists are politically, ideologically, or economically motivated. It can also seek to undermine scientific consensus by elevating a small number of dissenting or pseudo-expert voices as proof that the science is unreliable or that the need and urgency for climate action remain fundamentally disputed.

Health consequence:

Chilling effect on health communication, reduced public trust, and weakened participation of health voices in policy debates.

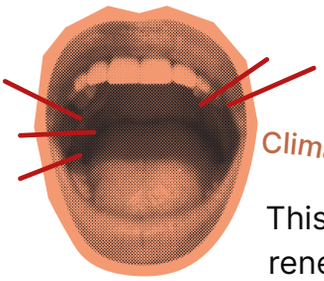
Extreme weather events are natural and unrelated to global warming



This narrative is trying to break the link between extreme weather and climate change, making floods, heatwaves, storms, droughts and wildfires appear as isolated “natural” events rather than worsened by human-driven global warming. Its purpose is to reduce urgency, protect the status quo, and delay responsibility for emissions cuts, fossil fuel phase-out, adaptation, and disaster preparedness.

Health consequence:

People and systems are left underprepared for the growing crisis. Heat action plans, early warnings, esilient hospitals, clean air protections, emergency response, and social protection may be delayed or weakened, leading to more preventable deaths, injuries, disease outbreaks, malnutrition, mental health harms, displacement, and pressure on health services.



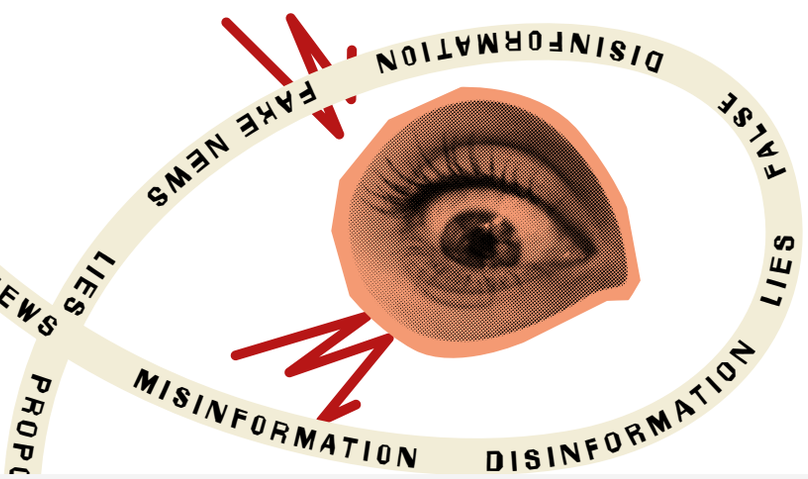
Climate solutions cause health harms/environmental harms.

This narrative portrays climate solutions, particularly renewable-energy technologies, as inherently harmful to human health or the environment. It often exaggerates legitimate concerns, presents isolated incidents as widespread risks, or circulates claims that are not supported by scientific evidence. Wind turbines, for example, have been falsely linked to illness through infrasound, electromagnetic fields, noise, and shadow flicker [32]. Shadow flicker is the moving pattern of light and shadow created when turbine blades pass in front of the sun. It occurs only under particular and predictable conditions and can be managed through appropriate siting, planning, and turbine operation. Available evidence does not support claims that it causes direct adverse health effects, including epileptic seizures.

Legitimate concerns about siting, biodiversity, mineral extraction, labour conditions, community participation, and the distribution of costs and benefits must be transparently assessed and addressed. However, these concerns can be manipulated or exaggerated to create fear, undermine public confidence, and obstruct the transition away from fossil fuels.

Health consequence:

Delayed renewable-energy deployment and continued dependence on fossil fuels prolong exposure to air pollution and climate-related health risks. These narratives can also divert attentionfrom genuine environmental safeguards and prevent constructive discussion about how climate solutions should be designed and implemented equitably.



[32] WindEurope, “Get All the Facts on Wind Energy Dis- and Misinformation Claims,” accessed August 3, 2026, https://windeurope.org/about-wind/dis-and-mis-information/

Common Tactics Used in Climate Disinformation

Understanding climate disinformation requires looking beyond individual false or misleading claims to the behaviours, tactics, and actors that shape the information environment. **Common tactics** include

- **Discrediting scientific consensus**: Framing established climate science as ideological, exaggerated, or politically motivated to manufacture doubt and delay action.
- **Targeting trusted messengers**: Attacking or intimidating climate scientists, health professionals, journalists, advocates, and other information defenders to undermine their credibility and discourage participation.
- **Distorting perceptions of decision-makers:** Portraying policymakers and public institutions as corrupt, captured, incompetent, or acting against the interests of ordinary people.
- **Elevating pseudo-experts:** Positioning individuals without relevant expertise as credible or independent voices, often presenting them as alternatives to supposedly "elite" scientific institutions.
- **Exploiting existing divisions:** Using economic anxieties, political identities, social grievances, and distrust of institutions to generate opposition to climate policies and deepen polarisation.
- **Promoting conspiratorial explanations:** Linking climate policies, international agreements, or public health measures to alleged efforts by "global elites" to exert control, undermine national sovereignty, or restrict individual freedoms.

These tactics often work together. Their purpose may be less to convince people of a single false claim than to create confusion, erode trust, intensify division, and make collective action more difficult.

Sources:
Adapted from Cook et al.'s FLICC taxonomy of science-denial techniques; Climate Action Against Disinformation and Institute for Strategic Dialogue analyses of climate disinformation; and the 2025 Declaration on Information Integrity on Climate Change



5

Case Studies of Climate Disinformation and Lessons for Health

Case Study 1

WILDFIRES, DISASTER MISINFORMATION, AND PUBLIC HEALTH HARM

Maui and Canada

Climate-related disasters create moments of fear, grief, uncertainty, and urgent need. These are also the conditions in which misinformation can spread quickly and cause direct harm. During and after disasters, people need reliable information about evacuation, shelter, emergency aid, smoke exposure, water safety, health services, and recovery support. When false or misleading claims circulate, they can delay protective action and prevent people from accessing help.

After the 2023 Maui wildfires, false claims circulated online that residents who applied for disaster assistance could have their land or property seized by the Federal Emergency Management Agency (FEMA).[33] Fact-checkers and officials clarified that this was false, but the damage of the rumour was its potential to deter survivors from seeking aid at precisely the moment they needed housing support, financial assistance, medical care, and recovery services. In a disaster setting, misinformation is not just confusing; it can directly obstruct access to life-saving and stabilising support.

A similar pattern emerged during Canada's 2023 wildfire season,



RO Kazui | Unsplash

[33] Phan, K., & Marcelo, P. (2023, August 19). Online posts spread misinformation about FEMA aid following Maui wildfires. Associated Press. https://apnews.com/article/maui-wildfires-hawaii-fema-misinformation-8562e2e81e03626acc5be

when the country experienced its most destructive wildfire season on record and smoke affected communities across Canada and the United States. As the fires spread, false and misleading narratives circulated online claiming that the fires were caused primarily by arson, terrorism, government conspiracy, lasers, drones, or weather control,[34] rather than being understood in the context of hotter, drier conditions worsened by climate change. The report Flame Wars: Misinformation and Wildfire in Canada's Climate Conversation [35] found that wildfire misinformation surged on X, formerly Twitter, during the 2023 fire season and shaped wider political and public conversations.

The health consequences are serious. Wildfire smoke contains fine particulate matter that can worsen asthma, chronic obstructive pulmonary disease, cardiovascular disease, pregnancy risks,and mental distress.[36] [37] When misinformation shifts attention away from climate-driven fire risk, air quality warnings, evacuation needs, and public health guidance, it leaves people less prepared and less protected. It also weakens support for the long- term measures needed to reduce health risks, including fossil fuel phase-out, forest and land management, early warning systems, clean air shelters, worker protections, and resilient health services.

The Canadian example also shows how disinformation can turn a health emergency into a political weapon. Instead of focusingpublic attention on protecting people from smoke, heat, displacement, and trauma, false narratives redirect anger toward scapegoats and conspiracy theories. This can deepen mistrust in public agencies, polarise communities, and delay climate policies that would reduce future harm.

© Wikimdedia Commons

34 Sadaf Mehrabi, "Climate Misinformation Is Becoming a National Security Threat. Canada Isn't Ready for It," The Conversation, December 21, 2025, https://theconversation.com/climate-misinformation-is-becoming-a-national-security-threat-canada-isnt-ready-for-it-271588

35 Flame Wars: Misinformation and Wildfire in Canada's Climate Conversation, Media Ecosystem Observatory, June 13, 2024, https://meo.ca/work/flame-wars

36 Wilgus ML, Merchant M. Clearing the Air: Understanding the Impact of Wildfire Smoke on Asthma and COPD. Healthcare (Basel). 2024 Jan 25;12(3):307. doi: 10.3390/healthcare12030307. PMID: 38338192; PMCID: PMC10855577.

37 Heaney A, Stowell JD, Liu JC, Basu R, Marlier M, Kinney P. Impacts of Fine Particulate Matter From Wildfire Smoke on Respiratory and Cardiovascular Health in California. Geohealth. 2022 Jun 3;6(6):e2021GH000578. doi: 10.1029/2021GH000578. PMID: 35795228; PMCID: PMC9166629.

Health lesson:

Emergency communication must anticipate mis and disinformation as part of disaster preparedness, not treat it as an afterthought. Health and emergency agencies should prepare clear, multilingual, accessible messages on aid eligibility, evacuation, shelter, smoke exposure, water safety, contamination, mental health support, and health services. Disaster response should include trusted community messengers, rapid reporting of facts , social media monitoring, partnerships with local media, and clear explanations of how climate change is worsening health risks. In wildfire contexts, public health messaging should explicitly connect immediate guidance, such as staying indoors, using masks or air filtration, and checking on vulnerable people, with the broader need to reduce the climate conditions that make such disasters more frequent and severe.

Case Study 2

LOW-EMISSION ZONES, AIR POLLUTION POLICY BACKLASH, AND PUBLIC HEALTH

London

Clean air policies such as low-emission zones are designed to reduce people's exposure to harmful traffic-related pollution. Yet these policies are often targeted by misleading narratives that exaggerate costs, deny or minimise health benefits, or frame them as punitive measures imposed on ordinary people. In London, the debate around the Ultra Low Emission Zone, or ULEZ (which imposes a charge for vehicles that do not meet emissions standards), has included concerns about affordability and implementation, particularly for low-income



households, workers, small businesses, and people who depend on older vehicles. However, these concerns have also been amplified and distorted by misinformation,[38] politicised attacks on air quality evidence, fake social media claims, and in some cases even violent backlash against ULEZ infrastructure.[39] [40]

The health significance is clear. Air pollution contributes to respiratory and cardiovascular disease, premature death, adverse birth outcomes, asthma, impaired lung development in children, and other long-term health harms.[41] Traffic -related pollution is especially harmful for children, older people, people with existing heart and lung conditions, outdoor workers, and communities living near busy roads [42]. Policies that reduce vehicle emissions can therefore deliver direct and measurable public health benefits.



London's experience shows this clearly. Following the introduction of the central London ULEZ in 2019, there were significant reductions in nitrogen-based pollutants, including NO_2 and NOx[43] with improvements extending beyond the original zone

38 Peter Walker, "False Claims in Tweets About Ulez Plans Cause Concern at London Mayor's Office," The Guardian, August 1, 2023, https://www.theguardian.com/politics/2023/aug/01/fake-tweets-about-ulez-plans-cause-alarm-at-london-mayor-office-sadiq-khan

39 BBC News. (2026, January 28). Man guilty of Ulez camera explosion. https://www.bbc.com/news/articles/cz7y2xyxg7vo

40 James W. Kelly and PA Media, "Demonstration Held in Central London to Protest against Ulez Expansion," BBC News, January 28, 2024, https://www.bbc.com/news/uk-england-london-68118811

41 Aithal SS, Sachdeva I, Kurmi OP. Air quality and respiratory health in children. Breathe (Sheff). 2023 Jun;19(2):230040. doi: 10.1183/20734735.0040-2023. Epub 2023 Jun 13. PMID: 37377853; PMCID: PMC10292770.

42 Zheng J, Liu S, Peng J, Peng H, Wang Z, Deng Z, Li C, Li N, Tang L, Xu J, Li J, Li B, Zhou Y, Ran P. Traffic-related air pollution is a risk factor in the development of chronic obstructive pulmonary disease. Front Public Health. 2022 Dec 7;10:1036192. doi: 10.3389/fpubh.2022.1036192. PMID: 36568772; PMCID: PMC9769455.

43 University of Birmingham, "London's ULEZ Cut Air Pollution — High Vehicle Compliance Left Little Room for Post-Expansion Gains," October 22, 2025, https://www.birmingham.ac.uk/news/2025/londons-ulez-cut-air-pollution-high-vehicle-compliance-left-little-room-for-post-expansion-gains

and into areas later covered by the 2023 expansion. More recent health research has strengthened the evidence of direct benefits: emergency hospital admissions fell following implementation of the ULEZ [44], another study of children [45] found that lung function growth accelerated after the zone was introduced, described by the authors as the first evidence that clean air zones can improve children's lung development. These findings make the health benefits of clean air policy tangible: reducing traffic pollution can mean fewer hospital visits and healthier lung development for children, alongside cleaner air for the wider population.

The backlash against ULEZ shows how disinformation can turn a public health intervention into a culture-war issue. Instead of focusing debate on how to reduce pollution while protecting those least able to bear transition costs, misinformation can shift attention toward fear, mistrust, and false claims. This risks weakening public support for policies that protect lungs, hearts, pregnancies, children, and communities most exposed to polluted air.

Health lesson:

Emergency communication must anticipate mis and disinformation as part of disaster preparedness, not treat it as an afterthought. Health and emergency agencies should prepare clear, multilingual, accessible messages on aid eligibility, evacuation, shelter, smoke exposure, water safety, contamination, mental health support, and health services. Disaster response should include trusted community messengers, rapid reporting of facts , social media monitoring, partnerships with local media, and clear explanations of how climate change is worsening health risks. In wildfire contexts, public health messaging should explicitly connect immediate guidance, such as staying indoors, using masks or air filtration, and checking on vulnerable people, with the broader need to reduce the climate conditions that make such disasters more frequent and severe.

44 Gary Fuller, "Emergency Hospital Admissions Fell after Introduction of London's T-Charge and Ulez, Study Suggests," The Guardian, June 12, 2026, https://www.theguardian.com/environment/2026/jun/12/emergency-hospital-admissions-reduced-london-t-charge-ulez-air-quality

45 Wood H, Hajmohammadi H, Dove R et al. Impact of the Ultra Low Emission Zone on lung function growth in children in London, UK: a prospective parallel cohort study. The Lancet Public Health, 2026; 0

Case Study 3

CLIMATE-DRIVEN FLOODING, CASCADING HEALTH RISKS AND THE HIDDEN COST OF MISINFORMATION

South Sudan



Guylain Kipoke | Pexels

South Sudan illustrates how climate change can turn recurrent flooding into a chronic and cascading public health crisis. Since 2019, unusually prolonged and extensive floods have affected large parts of the country almost every year. These events reflect the interaction of intense rainfall, exceptional river levels, natural climate variability such as El Niño–Southern Oscillation (ENSO) and the Indian Ocean Dipole, and long-term climate change, which is increasing the likelihood and intensity of extreme precipitation. Rather than producing a single health emergency, flooding triggers interconnected failures across health services, food systems, water and sanitation, livelihoods and social stability.

Flooding progressively weakens an already fragile health system. Health facilities are inundated or isolated, medical supplies and cold chains are disrupted, referral pathways collapse, and communities can be cut off from care for weeks or months. Women, newborns and adolescents are particularly affected as access to antenatal and postnatal care, emergency obstetric services,

contraception and routine immunisation is interrupted. Displacement can also increase exposure to gender-based violence, child marriage and sexual exploitation. Repeated emergencies force health systems into a continuous cycle of response and recovery, diverting resources from prevention and long-term system strengthening.

At the same time, flooding destroys crops and livestock, disrupts markets and livelihoods, and contaminates drinking-water sources. The resulting food insecurity and malnutrition, particularly among young children and pregnant and lactating women, interact with infectious disease risks. Damaged Water, Sanitation and Hygiene (WASH) systems contribute to cholera, acute watery diarrhoea and hepatitis E, while standing water expands mosquito breeding sites and overcrowded displacement settings increase the transmission of measles and respiratory infections. Flooding can also displace venomous snakes into settlements, increasing snakebite risks at precisely the time when access to antivenom and emergency treatment is most difficult.These health impacts are compounded by conflict, displacement and economic insecurity. Competition over habitable land, grazing areas and water can exacerbate local tensions, while insecurity further restricts humanitarian access and disease surveillance. Climate change therefore acts as a risk multiplier, intensifying existing social, political and health-system vulnerabilities rather than operating as an isolated threat.

A less visible part of this crisis is mis/ disinformation and information disorder. During prolonged emergencies, uncertainty, displacement and low institutional trust can create fertile conditions for rumours and false information. Misleading claims aboutchlorinated water, cholera vaccines, evacuation measures, humanitarian assistance or disease outbreaks can discourage people from using essential services or delay care-seeking. Misinformation about snakebite treatment may encourage ineffective or harmful remedies, while conspiracy narratives attributing floods to deliberate water releases, weather manipulation or political actors can undermine trust in institutions and distract from evidence-based adaptation measures. In this context, misinformation is not simply a communications challenge: it can directly affect exposure, treatment-seeking behaviour and the effectiveness of public health interventions.

Health lesson:

South Sudan demonstrates that climate-related disasters must be understood as cascading health emergencies, requiring more than short-term humanitarian response. Climate-resilient health systems need robust infrastructure and supply chains, climate-informed disease surveillance, continuity of maternal and reproductive health services, strengthened WASH and nutrition programmes, snakebite preparedness and integrated early-warning systems. Crucially, risk communication, community engagement and infodemic management should be treated as core elements of climate and health preparedness. Building health-system resilience means protecting communities not only from the physical impacts of climate hazards, but also from information environments that undermine trust, delay care and reduce the effectiveness of life-saving interventions.

Case Study 4

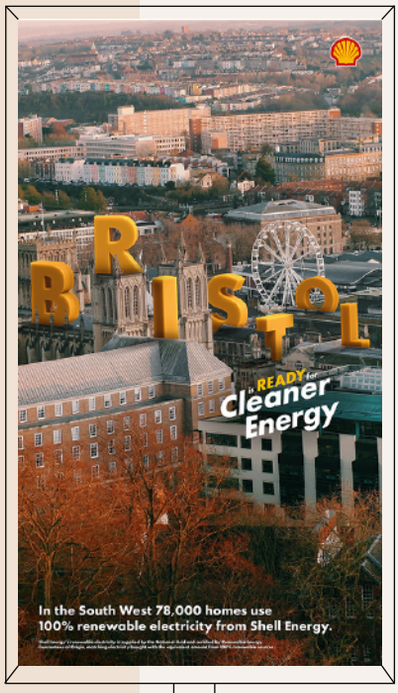
FOSSIL FUEL ADVERTISING, GREENWASHING, AND DELAYED CLIMATE ACTION

Fossil fuel companies and their public relations partners increasingly use greenwashing to present themselves as part of the climate solution while continuing fossil fuel production and expansion [46]. This can include advertising that highlights small investments in renewables, claims of "lower-carbon" fossil fuels, promotion of fossil gas as clean, or reliance on offsets and future technologies to justify ongoing emissions.

A clear example is Shell's "green" advertising campaign in the UK. In 2023, the UK Advertising Standards Authority banned Shell ads that promoted the company's renewable electricity, wind, and electric vehicle charging initiatives, finding that they were likely to mislead consumers because they did not make clear that the majority of Shell's business remained based on fossil fuels [47]. The problem was not simply that Shell mentioned its

[46] ClientEarth, "Revealed: 9 Examples of Fossil Fuel Company Greenwashing," April 19, 2021, https://www.clientearth.org/latest/news/revealed-9-examples-of-fossil-fuel-company-greenwashing/

[47] Shadia Nasralla, "UK Watchdog Bans Some Shell Renewable Energy Commercials," Reuters, June 7, 2023, https://www.reuters.com/sustainability/uk-watchdog-bans-some-shell-renewable-energy-commercials-2023-06-07/



cleaner investments; it was that the advertising created an impression of a company rapidly transforming, while omitting the scale of its continuing fossil fuel activities [48].

This concern is increasingly being recognised by cities and regulators. The Hague became the first city in the world to pass a legally binding law banning fossil fuel-related advertising in public spaces, including ads for petrol, diesel, aviation and cruise ships; the ban came into effect in January 2025 [49] and survived a legal challenge in April 2025. From 1 May 2026 [50], Amsterdam became the world's first capital city to ban fossil fuel and other high-carbon advertising in public spaces, including ads linked to meat andfossil fuel products. These measures show that fossil fuel advertising is being treated not simply as commercial speech, but as a form of public messaging that can undermine climate action and public welfare. including ads linked to meat and fossil fuel products [51].

This matters for health because fossil fuel dependence drives air pollution, climate change, occupational hazards, toxic exposures, and community contamination [52]. Greenwashing delays the social and political shift away from fossil fuels by normalising continued use, obscuring the need for phase-out, and making incremental or marginal corporate action appear equivalent to real structural change [53] [54].

48 Mark Sweney, "Shell's 'Green' Ad Campaign Banned in UK for Being 'Likely to Mislead,'" The Guardian, June 7, 2023, https://www.theguardian.com/business/2023/jun/07/shells-green-ad-campaign-banned-in-uk-for-being-likely-to-mislead

49 Isabella Kaminski, "The Hague Becomes World's First City to Pass Law Banning Fossil Fuel-Related Ads," The Guardian, September 13, 2024, https://www.theguardian.com/world/2024/sep/13/the-hague-becomes-worlds-first-city-to-ban-fossil-fuel-related-ads

50 ClientEarth, "World-First Law Banning Fossil Fuel Ads Survives Dutch Legal Challenge," April 25, 2025, https://www.clientearth.org/latest/press-office/world-first-law-banning-fossil-fuel-ads-survives-dutch-legal-challenge/

51 BBC News, "Amsterdam Bans Public Adverts for Meat and Fossil Fuels," May 6, 2026, https://www.bbc.com/news/articles/c9wejdekpwyo

52 Global Climate and Health Alliance, Cradle to Grave: The Health Toll of Fossil Fuels and the Imperative for a Just Transition, 2nd ed., accessed July 1, 2026, https://climateandhealthalliance.org/cradle-to-grave-the-health-toll-of-fossil-fuels-and-the-imperative-for-a-just-transition-2nd-edition/

53 United Nations, "Greenwashing – the Deceptive Tactics Behind Environmental Claims," accessed July 1, 2026, https://www.un.org/en/climatechange/science/climate-issues/greenwashing

54 UN Secretary-General António Guterres, A Moment of Truth: Special Address on Climate Action, 5 June 2024. https://www.un.org/sg/en/content/sg/statements/2024-06-05/secretary-generals-special-address-climate-action-moment-of-truth-delivered

Health lesson:

The health community and advertising regulators should treat fossil fuel advertisements and greenwashing as a public health risk. Health institutions should avoid partnerships with fossil fuel companies and fossil fuel-linked public relations agencies, reject sponsorship that launders reputations, and support restrictions on fossil fuel advertising and sponsorship similar to those used in tobacco control.

UN Secretary-General Calls for a Ban on Fossil Fuel Advertising [55]



In June 2024, UN Secretary-General António Guterres called for governments worldwide to ban advertising by fossil fuel companies, drawing a direct parallel with restrictions placed on products that harm human health, such as tobacco. He also urged news and technology companies to stop accepting fossil fuel advertising and called on advertising and public relations agencies to stop taking new fossil fuel clients and develop plans to end existing relationships.

The call recognised that fossil fuel influence extends beyond the production and sale of coal, oil and gas to the information environment surrounding their continued use. Guterres criticised the industry's use of greenwashing, lobbying and advertising to mislead the public and delay climate action, arguing that communications and PR companies have helped enable these practices.

Public health lesson: The Secretary-General's intervention provides an important precedent for treating fossil fuel advertising as a public health and information-integrity issue, not simply a question of commercial speech. As with tobacco, protecting health can require action not only on the harmful product itself, but also on the marketing and influence strategies that normalise its use, obscure its harms and undermine effective regulation.

55 UN Secretary-General António Guterres, A Moment of Truth: Special Address on Climate Action 5 June 2024. https://www.un.org/sg/en/content/sg/statements/2024-06-05/secretary-generals-special-address-climate-action-moment-of-truth-delivered

Case Study 5

WHEN "DEVELOPMENT" NARRATIVES MARGINALISE INDIGENOUS PEOPLES [56]

Indonesia

Indonesia illustrates how climate disinformation can operate not simply through outright denial of climate change, but through selective narratives about development, progress and climate solutions that obscure environmental and social harms. Asia Centre's 2026 study draws on desk research, 12 key-informant interviews with Indigenous representatives, civil society, media and academics, and focus-group discussions with Indigenous civil-society organisations. The report identifies four interrelated forms of climate disinformation: corporate greenwashing; promotion of false climate solutions; appeals to economic progress; and deflection of responsibility for climate change, including conspiracy narratives and denial of environmental responsibilities. Together, these narratives help present large-scale extractive and development projects as necessary, sustainable or beneficial while minimising their environmental, human-rights and community impacts.



Keith Bacongco | Flickr

[56] Asia Centre, Climate Disinformation in Indonesia: Prioritising Development Over Indigenous Peoples' Vulnerability (2026). https://asiacentre.org/wp-content/uploads/2026/01/Climate-Disinformation-in-Indonesia_Prioritising-Development-Over-Indigenous-Peoples-Vulnerability.pdf

A particularly powerful narrative is the framing of economic growth and "modern" development as synonymous with societal well-being. Indigenous land stewardship and traditional practices can consequently be characterised as inefficient, backward or barriers to national progress. The report argues that this creates a false opposition between development and Indigenous rights and knowledge, while narrowing the meaning of development largely to economic growth.

Climate disinformation also operates by delegitimising those who challenge powerful interests. Environmental organisations and activists have been portrayed as foreign-funded or "anti-Indonesia", while opposition to some development projects has been associated with extremism or threats to national development. Such narratives shift attention away from the substance of environmental concerns and towards the motives or identities of those raising them.

The report demonstrates that disinformation is not only an information problem. It can help create the political and social conditions in which harmful decisions become easier to justify. Asia Centre identifies four major consequences for Indigenous Peoples: exclusion from environmental decision-making, forced displacement, erosion ofIndigenous knowledge, and criminalisation of Indigenous people and environmental defenders. Climate narratives can contribute to overriding or weakening Free, Prior and Informed Consent (FPIC), while "national interest" and sustainability claims legitimize projects affecting Indigenous lands and livelihoods. One example comes from Wawonii Island, where residents reported that nickel mining had polluted water, leaving it muddy and unsuitable for everyday use. The company reportedly attributed the muddy water to heavy rainfall rather than industrial activity and stated that water quality had been restored; residents reported continuing turbid and dark-brown water even in the absence of heavy rain. The example shows how disputing the source of environmental harm can become a mechanism for deflecting accountability.

The report also shows how undermining Indigenous knowledge can remove important forms of environmental protection and resilience. Traditional practices such as swidden agriculture and Sasi have been portrayed as incompatible with modern development or blamed for environmental degradation, despite evidence cited by the report that industrial plantations, rather than traditional swidden practices, are major drivers of deforestation.

Health lesson:

For the health community, this case demonstrates that climate disinformation is not only a communications problem but a public health determinant. Misleading narratives can shape whose evidence is trusted, which harms are recognised, and which policies are considered acceptable. Health actors should challenge false trade-offs between development and environmental protection by making visible the full health costs of pollution, displacement, food and water insecurity, livelihood loss, and environmental degradation. They should also ensure that health impact assessments incorporate Indigenous knowledge, lived experience, and community-generated evidence, rather than relying only on government or corporate claims. Protecting trusted messengers, including health professionals, journalists, Indigenous leaders, and environmental defenders, is equally important, as attacks on their credibility can weaken both public understanding and accountability. Rather than repeating individual false claims, health communicators should focus on exposing recurring tactics such as greenwashing, deflection of responsibility, attacks on critics, and the framing of harmful development as inevitable or beneficial, while consistently leading with accurate, locally grounded health information.

Case Study 6

ATTACKS ON CLIMATE SCIENTISTS, HEALTH ADVOCATES, JOURNALISTS, AND ENVIRONMENTAL DEFENDERS

Climate disinformation is often accompanied by attacks on the people who communicate climate risks. Scientists, journalists, health professionals, Indigenous leaders, community advocates, and environmental defenders may face online abuse, threats, legal intimidation, reputational attacks, and efforts to delegitimise their expertise. These attacks are not incidental. They are often part of a wider strategy to weaken public trust in evidence, silence credible messengers, and make climate action appear controversial, extreme, or politically motivated.

Climate scientists have repeatedly reported harassment when communicating climate evidence. Global Witness documented online abuse directed at climate scientists and warned that such harassment can affect how scientists communicate their work publicly [57]. Nature has also reported that scientists facing intimidation need institutional support, not just individual resilience [58]. When scientists are attacked for explaining climate risks, the public loses access to trusted, evidence -based information precisely when it is needed for heat preparedness, disaster response, clean air policy, and health-system planning.

Environmental journalists face similar threats. UNESCO reported that at least 749 journalists or media outlets reporting on environmental issues wer attacked over the last 15 years, and that online disinformation has surged alongside violence and intimidation [59]. These attacks matter for health because journalists often provide the first public warning about pollution, unsafe water, toxic exposure, heat risks, forest fires, floods, and corporate or governmental failures. If journalists are intimidated into silence or self-censorship, communities may be left without the information they need to protect themselves.If journalists are intimidated into silence or self-censorship, communities may be left without the information they need to protect themselves.



57 Global Witness, Global Hating: How Online Abuse of Climate Scientists Harms Climate Action, published April 4, 2023, https://globalwitness.org/en/campaigns/digital-threats/global-hating/ /

58 Adam Levy, “How My Research Focus Exposed Me to Threats and Harassment,” Nature, February 7, 2025, https://www.nature.com/articles/d41586-025-00392-w

59 United Nations Educational, Scientific and Cultural Organisation, "UNESCO report reveals 70% of environmental journalists have been attacked for their work," 3 May 2024, https://www.unesco.org/en/articles/unesco-report-reveals-70-environmental-journalists-have-been-attacked-their-work

The risks are even more severe for land, Indigenous, and environmental defenders, who may face harassment, intimidation, criminalisation, and violence. These attacks are often gendered and sexualised, with women and gender -diverse defenders subjected to misogynistic abuse, threats of sexual violence, attacks on their families, and attempts to discredit them through gendered stereotypes. Global Witness documented 196 killings of land and environmental defenders in 2023 alone, bringing the total to more than 2,000 killings globally since it began reporting in 2012 [60]. These defenders are often protecting forests, water, land, and communities from extractive industries, pollution, and climate-harming projects. Their work is directly connected to health: protecting land and ecosystems also protects food systems, water security, clean air, livelihoods, cultural survival, and mental wellbeing.

Legal intimidation is another tool used to chill public participation. Strategic lawsuits against public participation, or SLAPPs, can be used by powerful actors to drain the time, money, and energy of activists, researchers, journalists, and civil society groups. Even when such cases are weak, the threat of costly litigation can deter people from speaking out about fossil fuel projects, pollution, deforestation, or climate harms. Human Rights Watch has also documented increasingly harsh penalties against climate and environmental protesters in parts of Australia, including fines and prison terms. These measures can discourage public mobilisation around policies that protect health and the environment.

These attacks have wider public health consequences. They reduce the visibility of evidence-based climate and health information, weaken accountability, and allow polluting industries or political actors to frame health-protective climate action as alarmist or illegitimate. They also create fear among those best placed to warn the public: researchers who understand the evidence, journalists who investigate harm, health workers who see the impacts, and frontline communities who live with the consequences.

[60] Global Witness, "More than 2,100 land and environmental defenders killed globally between 2012 and 2023," 10 September 2024. https://globalwitness.org/en/press-releases/more-than-2100-land-and-environmental-defenders-killed-globally-between-2012-and-2023/

Health lesson:

Protecting information integrity also means protecting messengers, including safeguarding their freedom of expression and their ability to speak, report, research, and advocate without intimidation, censorship, or retaliation. Health organisations should publicly defend scientists, health workers, journalists, Indigenous leaders, and frontline advocates who communicate climate and health risks. WHO, Member States, and civil society should recognise attacks on climate-health messengers as a threat to public health governance. This means providing institutional backing, legal support, digital security, rapid solidarity, anti-harassment protocols, and safe platforms for testimony. Health systems cannot prepare for the climate crisis if the people warning about its health impacts are silenced..



6

Lessons from WHO and Public Health Experience

The health community is not starting from scratch in responding to climate disinformation. WHO and public health actors have decades of experience confronting harmful information environments, from tobacco industry denial to vaccine misinformation and the COVID-19 infodemic. These experiences show that disinformation is rarely just a matter of individual misunderstanding. It is shaped by trust, power, commercial interests, political incentives, media systems, and people's lived experiences. The same lessons should now be applied to climate and health.

6.1 Lesson from COVID-19: Build infodemic management capacity

The COVID-19 pandemic showed that a health emergency is also an information emergency. False and misleadingclaims about the virus, masks, vaccines, treatments, and public health measures affected whether people trusted guidance, sought care, accepted vaccination, or protected others. WHO's experience demonstrated that harmful information environments require systematic management, not occasional correction after misinformation has already spread.polluted air, extreme weather, food insecurity, infectious disease risks, and health-system disruption.

Infodemic[62] management includes social listening, risk communication, community engagement, rapid response, evidence synthesis, behavioural insights, and partnerships with trusted messengers. The goal is not only to debunk false claims, but to understand what people are worried about, why certain narratives spread, and what information people need in order to act.

Application to climate and health:

- Establish climate-health infodemic monitoring.
- Track harmful narratives around heat, disasters, air pollution, fossil fuels, vaccines during climate-sensitive disease outbreaks, and climate policies.
- Use social listening to understand public concerns, not only to identify false claims.
- Build rapid-response systems before crises occur.
- Equip health workers with practical communication tools.
- Partner with community leaders, journalists, educators, emergency responders, meteorological agencies, and local health institutions.

[62] World Health Organization. Infodemic. https://www.who.int/health-topics/infodemic#tab=tab_1

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6.2 Lesson from tobacco: Address commercial determinants, industry influence and conflicts of interest

Tobacco control shows that disinformation is often driven by commercial interests, not just public confusion. For decades, the tobacco industry manufactured doubt about the health harms of smoking, funded misleading research, used front groups, and interfered in policymaking to delay regulation. The WHO Framework Convention on Tobacco Control,[63] especially Article 5.3, recognises that public health policy must be protected from the vested interests of industries whose products cause harm.

This lesson is directly relevant to climate and health. Fossil fuel companies and allied industries have strong commercial incentives to delay phase-out, weaken regulation, promote false solutions, and present themselves as indispensable to development and energy security. Public health policy cannot be shaped by actors whose core business model is driving health-harming pollution and climate instability.

Application to climate and health:

- Develop conflict-of-interest safeguards for fossil fuel industry engagement in health and climate policy.
- Require transparency of lobbying, sponsorship, research funding, advertising, and public relations relationships.
- Exclude fossil fuel companies and their proxies from health and climate policy spaces where they have a direct conflict of interest.
- Avoid health-sector partnerships, sponsorships, or communications contracts that legitimise fossil fuel interests.
- Monitor front groups, trade associations, think tanks, and third-party campaigns that obscure industry influence.

[63] World Health Organization, "Guidelines for Implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control," 2013. https://fctc.who.int/docs/librariesprovider12/technical-documents/who-fctc-article-5.3.pdf?sfvrsn=a52de22a_16

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6.3 Lesson from vaccine confidence Trusted messengers matter

Vaccine misinformation shows that facts alone are not enough. People are more likely to accept health guidance when it comes from messengers they trust, in language they understand, and in ways that acknowledge their fears and lived realities. Trust is built through relationships, consistency, transparency, empathy, and local relevance. Health workers are often among the most trusted voices, but they need training, institutional support, and protection from harassment.

The same applies to climate and health. People may have legitimate concerns about energy prices, jobs, transport access, livelihoods, food systems, or fairness. If these concerns are dismissed, they can be exploited by disinformation campaigns. Climate-health communication must therefore combine clear evidence with empathy and practical answers.

Application to climate and health:

- Train health workers to communicate climate risks and solutions in patient-centred, locally relevant language.
- Use nurses, doctors, community health workers, midwives, pharmacists, mental health professionals, and public health practitioners as climate-health messengers.
- Support community-led communication, especially in frontline and climate-vulnerable communities.
- Listen to and address legitimate concerns about affordability, jobs, energy access, transport, and fairness rather than dismissing them as misinformation.
- Communicate uncertainty honestly while being clear about what is already known.

6.4 Lesson from emergency risk communication: Speed and clarity save lives

In outbreaks and disasters, delayed, confusing, or contradictory communication can cost lives. People need to know what is happening, who is at risk, what action to take, where to get help, and which sources to trust. Public health experience shows that communication must be early, clear, repeated, practical, and delivered through channels people already use.

This is highly relevant to climate -related emergencies such as heatwaves, floods, wildfires, storms, droughts, and disease outbreaks. Misinformation during these events can confuse people about evacuation, aid eligibility, shelter, smoke exposure, contaminated water, heat risk, or access to health services.

Application to climate and health:

- Integrate misinformation response into heat action plans, wildfire smoke guidance, flood response, disease surveillance, disaster preparedness, and health-system resilience plans.
- Pre-position public messages before predictable hazards such as heat seasons, monsoons, wildfire seasons, or periods of high air pollution.
- Provide multilingual, accessible, disability-inclusive guidance.
- Work with local media, community organisations, and trusted local leaders before emergencies occur.
- Correct false claims quickly without unnecessarily amplifying them.
- Use existing platforms to share knowledge and advocacy and heat and health; e.g. through WHO's initiative against extreme heat and health reisks in workplaces and major events "Beat the Heat".[64]
- Ensure emergency guidance explains both immediate protective actions and the wider climate-health context.

64 https://www.who.int/initiatives/initiative-against-extreme-heat-and-health-risks-in-workplaces-and-major-events

6.5 Lesson from commercial determinants of health: Regulate harmful marketing

Public health has long recognised that advertising and sponsorship shape behaviour, norms, and policy. Tobacco advertising restrictions, alcohol marketing debates, and junk food marketing controls show that voluntary industry commitments are often insufficient when powerful industries profit from harmful products. Marketing does not only sell products; it builds legitimacy, normalises harm, and influences public expectations.

The WHO International Code of Marketing of Breast-milk Substitutes[65] is an important precedent. It was developed because aggressive formula milk marketing was found to undermine breastfeeding, distort parental decision -making, and weaken public health advice. The Code recognises that when commercial promotion conflicts with health protection, governments and health institutions have a responsibility to regulate marketing, prevent conflicts of interest, and protect families from misleading claims.

This lesson is highly relevant to climate and health: Health-harming industries should not be allowed to use advertising, sponsorship, or trusted institutions to obscure risks and shape public behaviour.

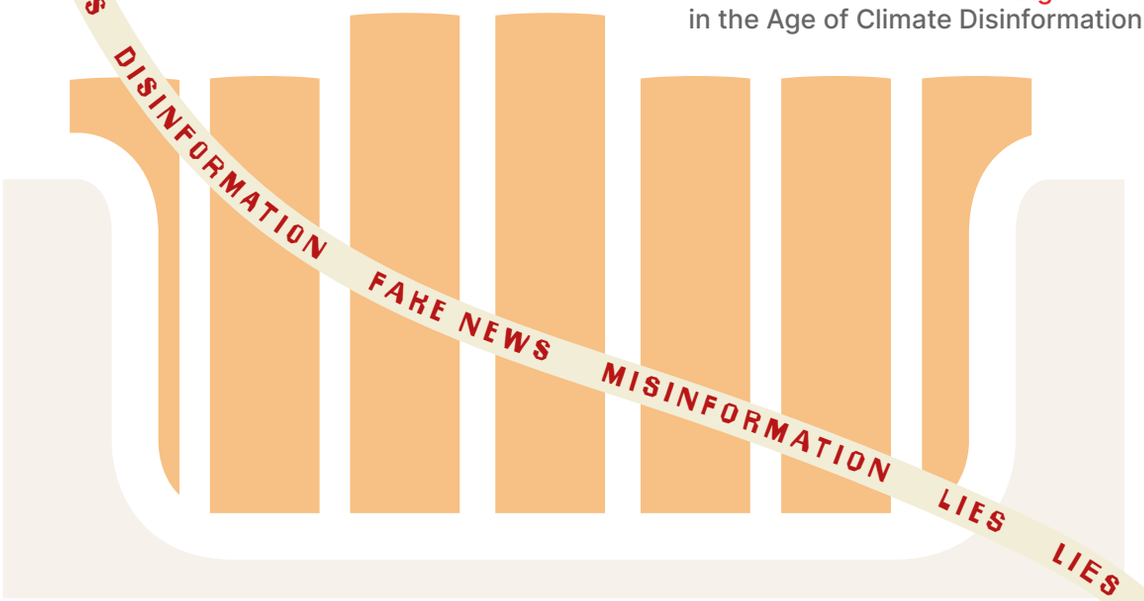
Fossil fuel advertising and greenwashing operate in similar ways. They can make continued fossil fuel production appear compatible with climate action, overstate small investments in cleaner energy, promote gas as clean, or suggest that offsets and future technologies are enough. This delays the political and social shift needed to protect health.

Application to climate and health:

- Prohibit fossil fuel advertising, sponsorship, and misleading environmental claims.
- Prevent health events, medical conferences, journals, hospitals, universities, and health institutions from accepting fossil fuel-linked sponsorship.
- Require disclosure of industry-funded climate and health communications.
- Hold public relations and advertising firms accountable for campaigns that mislead the public about fossil fuel harms or climate solutions.
- Treat fossil fuel greenwashing as a public health risk, not merely a consumer protection issue.
- Draw on public health precedents such as the regulation of breast-milk substitute marketing to argue that fossil fuel interest should not be allowed to undermine health-protective policy.

[65] World Health Organization. "International code of marketing of breast-milk substitutes," 27 January 1981, https://www.who.int/publications/i/item/9241541601

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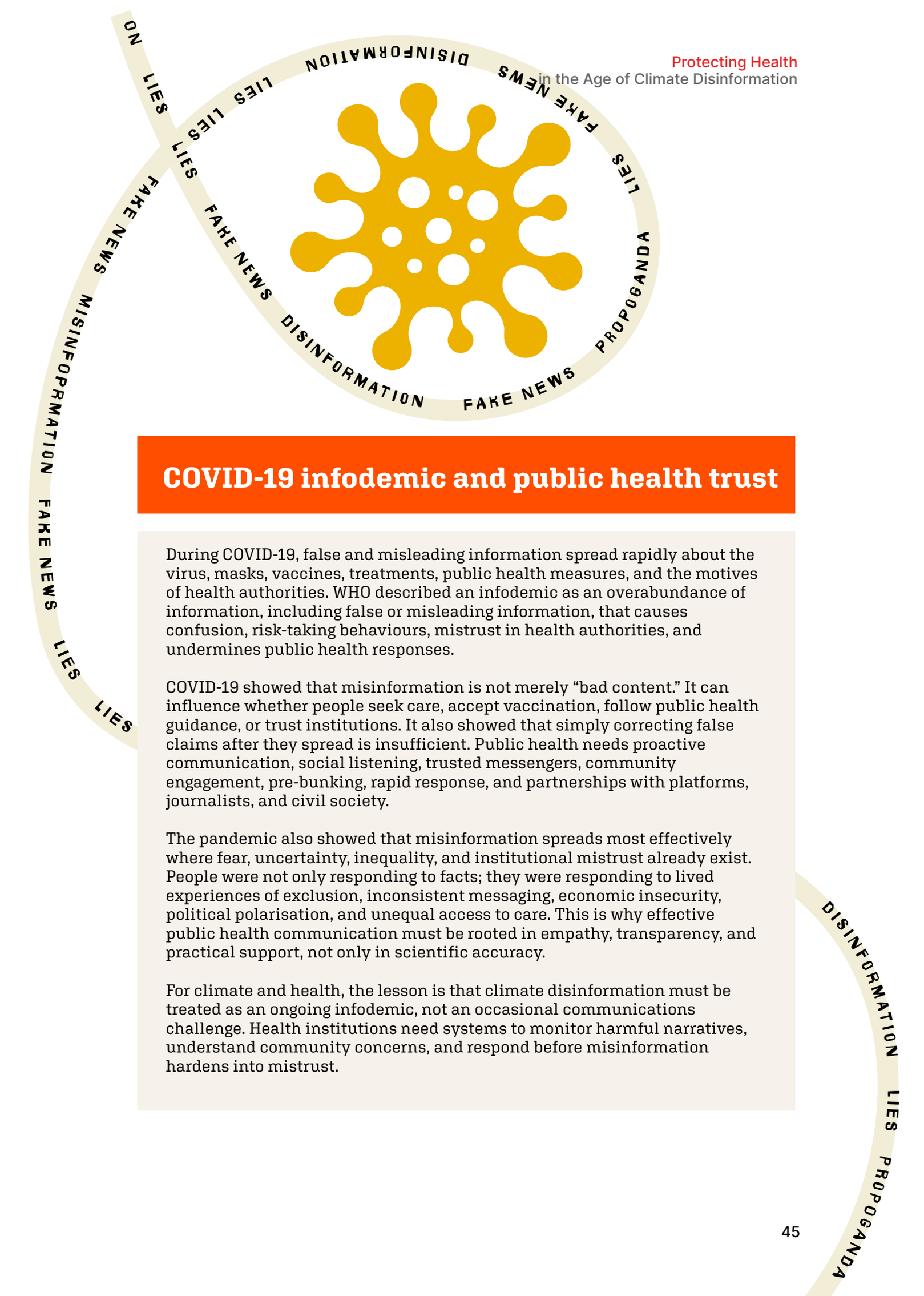
Tobacco and the manufacture of doubt

The tobacco industry provides one of the clearest historical examples of organised disinformation causing mass health harm. For decades, tobacco companies questioned scientific evidence linking smoking to cancer and other diseases, funded misleading research, used front groups, targeted policymakers, and framed regulation as an attack on freedom. The aim was not always to prove tobacco was safe; often it was enough to create doubt, delay regulation, and keep people smoking.

This strategy worked because doubt itself became a political tool. By creating the impression that the science was unsettled, the industry bought time, weakened public concern, and slowed measures such as advertising restrictions, health warnings, smoke-free spaces, taxation, and litigation. The result was not simply confusion in public debate; it was prolonged exposure to a product known to cause disease and premature death.

The WHO Framework Convention on Tobacco Control recognised this problem and established Article 5.3, which requires Parties to protect public health policies from the commercial and vested interests of the tobacco industry. The lesson for climate and health is direct: when an industry's core products cause serious health harm, that industry has a structural conflict of interest in shaping the policies designed to regulate those harms.

Climate disinformation has many parallels with tobacco: manufacturing doubt, funding front groups, attacking science, promoting individual responsibility over structural regulation, and delaying policy while continuing harmful business practices. The health community should apply the same clarity to fossil fuel interests that it has applied to tobacco: engagement must be governed by strict conflict-of-interest safeguards, transparency, and public health primacy.



COVID-19 infodemic and public health trust

During COVID-19, false and misleading information spread rapidly about the virus, masks, vaccines, treatments, public health measures, and the motives of health authorities. WHO described an infodemic as an overabundance of information, including false or misleading information, that causes confusion, risk-taking behaviours, mistrust in health authorities, and undermines public health responses.

COVID-19 showed that misinformation is not merely “bad content.” It can influence whether people seek care, accept vaccination, follow public health guidance, or trust institutions. It also showed that simply correcting false claims after they spread is insufficient. Public health needs proactive communication, social listening, trusted messengers, community engagement, pre-bunking, rapid response, and partnerships with platforms, journalists, and civil society.

The pandemic also showed that misinformation spreads most effectively where fear, uncertainty, inequality, and institutional mistrust already exist. People were not only responding to facts; they were responding to lived experiences of exclusion, inconsistent messaging, economic insecurity, political polarisation, and unequal access to care. This is why effective public health communication must be rooted in empathy, transparency, and practical support, not only in scientific accuracy.

For climate and health, the lesson is that climate disinformation must be treated as an ongoing infodemic, not an occasional communications challenge. Health institutions need systems to monitor harmful narratives, understand community concerns, and respond before misinformation hardens into mistrust.

7

Principles for a Health-Based Respons to Climate Disinformation

A health-sector response should be guided by the following principles.

1 Health protection must come first

The goal is not simply to win a debate, but to prevent harm, protect communities, and enable health-promoting climate action.

2 Truth must be paired with trust

Accurate information matters, but trust determines whether people act on it. Communication must be honest, empathetic, locally relevant, and delivered by trusted messengers

3 Disinformation is not only a content problem

It is also a power problem. Commercial interests, political actors, digital platforms, and media systems shape what people see and believe.

4 Equity must be central

Communities most affected by climate harms must not be blamed for mistrust or excluded from communication strategies. They must be partners in shaping messages, policies, and solutions.

5 Health protection must come first

Actors that profit from fossil fuel dependence should not shape public health policy on climate change.

6 Health messengers must be protected

Attacks on scientists, health workers, journalists, and community advocates undermine public health and information integrity. Governments and institutions should treat such attacks as a serious governance and accountability issue and establish safeguards to protect those communicating evidence in the public interest.

7 Communication must be connected to policy

Good messaging cannot compensate for unfair policy. Climate policies must be designed to protect livelihoods, improve health, reduce inequality, and build public trust.

8 Prevention is better than correction

Pre-bunking, preparedness, and nformation resilience are more effective than reacting after harmful narratives spread.



What the Health Community Can Do to Challenge Climate Disinformation

The health community has a unique role in challenging climate disinformation because it sees the human consequences of the climate crisis first-hand. Health professionals witness heat illness, asthma attacks, cardiovascular disease, malnutrition, infectious disease risks, trauma, displacement, and the health impacts of air pollution and extreme weather. They can translate climate science into lived reality: climate change is not an abstract environmental issue, but a direct threat to bodies, communities, and health systems. This gives health voices particular credibility. When disinformation claims that climate action is unnecessary, too costly, or too extreme, the health community can reframe the debate around preventable illness, avoidable deaths, and the unequal burden borne by children, older people, workers, pregnant people, people with disabilities, Indigenous Peoples, and frontline communities.

Realising this potential, however, requires health workers to be equipped with the knowledge and confidence to communicate about climate change, air pollution, and other environmental health risks. Climate and environmental health should therefore be more systematically integrated into medical and health-professional curricula, continuing education, and practical training. This can strengthen the ability of health workers, whether in hospitals, primary care settings, or communities, to recognise climate and pollution-related health risks, provide appropriate guidance, and translate complex scientific evidence into clear, actionable information. As trusted messengers, health professionals can also help people distinguish credible evidence from misleading claims and strengthen resilience to mis/ disinformation. people distinguish credible evidence from misleading claims and strengthen resilience to mis/ disinformation.

Challenging climate disinformation is not only about correcting false claims. It is also about building trust, exposing conflicts of interest, rejecting fossil fuel greenwashing, supporting affected communities, and making clear that climate action is a health protection measure. Health workers and institutions can help people understand the isks they face, identify credible guidance, and support policies that protect health.

The following are key ways in which the health community can play an active role in challenging climate disinformation.

8.1 Reframe climate disinformation as a public health threat

Health organisations should explicitly recognise climate disinformation as a determinant of health and a barrier to climate action. This includes naming its health consequences: delayed policy, increased pollution exposure, weakened disaster response, mistrust in health authorities, and preventable illness and death.health professionals can also help

8.2 Build climate-health communication capacity

Health workers and organisations need

practical tools to communicate

- how climate change affects health;
- why fossil fuels are health-harming products;
- how the fossil fuel industry has known the impacts of their products on climate and yet have deliberately misled the populations for the sake of profits.
- how climate action improves health;
- how to respond to common myths and misleading narratives;
- how to communicate during heatwaves, smoke events, floods, storms, and disease outbreaks;
- how to speak with empathy to communities worried about jobs, costs, and energy access.

WHO's climate and health communication resources can be expanded to include a dedicated disinformation and information integrity module

8.3 Establish social listening and narrative monitoring

Health civil society, academic institutions, and public health agencies should monitor harmful climate-health narratives, especially those linked to:

- heat risk
- air pollution
- fossil fuel phase-out
- renewable energy
- clean cooking
- low-emission zones
- disaster aid
- climate-related infectious diseases
- health-system decarbonisation
- climate migration
- climate finance
- attacks on scientists and health messengers

Monitoring should not be limited to English or high-income country platforms. Climate disinformation is increasingly visible across the low- and middle-income countries, where it intersects with development debates, energy access, debt, extractivism, and political distrust.

8.4 | Develop rapid-response mechanisms

Health organisations should create rapid-response protocols for climate misinformation. These should include:

Rapid-rsponse protocols

- a small group of trained spokespeople
- pre-approved evidence briefs
- myth-response templates
- correcting without amplifying links with fact-checkers and journalists
- escalation pathways for harmful viral content
- coordination with health ministries and emergency agencies
- community-specific communication channels.
- knowing when not to respond.

Rapid response should prioritise misinformation that is likely to cause harm, not every inaccurate claim. The aim is to reduce health risk, not to debate every bad-faith actor.

8.5 | Use pre-bunking[66] and inoculation

Pre-bunking means preparing people before they encounter mis/ disinformation by warning themabout common manipulation techniques and helping them recognise how misleading claims work. Psychological inoculation operates much like a vaccine: exposure to a weakened example of a misleading argument, together with an explanation of the tactic being used, can make people more sceptical and better able to identify similar manipulation when they encounter it later[67]. There is growing evidence for its use in climate communication. A 2026 systematic review [68] found that inoculation approaches can reduce susceptibility to climate mis/ disinformation and strengthen trust in climate science, with interventions combining inoculation and scientific-consensus messaging showing particularly promising effects on climate beliefs and policy support. However, the evidence on how long these effects persist remains limited, reinforcing the value of repeated and context -specific interventions rather than one-off campaigns.

66 https://www.sciencedirect.com/science/article/pii/S0272494426001301

67 https://theconversation.com/can-we-be-inoculated-against-climate-misinformation-yes-if-we-prebunk-rather-than-debunk-215815

68 La Selva, G., Monacis, L., & van der Linden, S. (2026). Prebunking interventions against climate misinformation: A systematic review on effectiveness and implementation. Journal of Environmental Psychology, 111, 103029. https://doi.org/10.1016/j.jenvp.2026.103029

Pre-bunking in practice can be simple. Rather than repeating a specific false narrative, communicators can warn audiences about the technique they may encounter, for example: “Some campaigns use people who appear to be experts but do not have relevant scientific expertise. When assessing claims about climate and health, check the person’s expertise and whether their claims reflect the wider body of evidence.” Similar approaches can prepare audiences to recognise cherry-picking, conspiracy narratives, false dilemmas, attacks on trusted messengers, or claims demanding impossible levels of scientific certainty.

Where mis/ disinformation has already circulated and needs to be addressed, communicators can also use a “truth sandwich”: lead with the accurate information; briefly identify and explain the misleading claim or technique without unnecessarily amplifying it; then return to the truth and the action people should take [69].

Pre-bunking should not be left solely to the health community. Governments, media, civil society, educators, climate organisations and other trusted institutions can integrate health-focused inoculation and information-literacy approaches into routine communications, helping audiences recognise manipulation before it shapes perceptions, behaviours or support for health-protective climate action.

Examples

- **Extreme heat is becoming more frequent and dangerous as the climate warms.**

  Be alert to messaging that normalises worsening heat by presenting increasingly extreme conditions as simply routine seasonal weather.

- **Clean air policies are public health measures.**

  By reducing harmful air pollution, they can protect lungs and hearts and reduce risks to pregnancies and children’s development. Claims about such policies should be assessed against their demonstrated health benefits.

- **Fossil gas contributes to both air pollution and climate change.**

  Its combustion produces air pollutants and greenhouse gases, while methane can leak throughout the gas supply chain. Communications that describe energy sources as “clean” should be examined against their full lifecycle health and climate impacts.

- **Pre-bunking should focus on tactics as well as facts:**

  cherry-picking, false balance, conspiracy framing, fake experts, front groups, greenwashing, and attacks on messengers

[69] https://www.pbs.org/standards/blogs/standards-articles/what-is-a-truth-sandwich/

8.6 | Centre frontline and community voices

Communities affected by fossil fuel pollution and climate disasters are often the first to identify harm and the last to be believed. Their testimony is essential to counter disinformation that abstracts, minimises, or denies health impacts.

Health organisations should:

- support community-led documentation of health harms
- create ethical platforms for testimony
- Protect communities from storytelling that uses their experiences without informed consent, agency, proper attribution, or tangible benefit
- ensure communication is multilingual and locally grounded
- connect lived experience with scientific evidence
- support frontline advocates facing harassment or intimidation

8.7 | Strengthen conflict-of-interest safeguards

Health civil society, academic institutions, and public health agencies should monitor harmful climate-health narratives, especially those linked to:

- sponsorship
- donations
- research funding
- advisory roles
- conference participation
- advertising;
- public relations and communications contracts
- procurement
- partnerships
- governance roles
- policy consultations

8.8 | Support fossil fuel advertising and sponsorship

The health community should support prohibition on fossil fuel advertising and sponsorship, especially where such advertising misleads the public about climate and health harms or promotes continued fossil fuel dependence. This is consistent with public health approaches to tobacco advertising and other harmful products.

Health organisations can advocate for:

- bans on fossil fuel advertising and sponsorship in public spaces
  restrictions on misleading environmental claims
- disclosure of paid climate-related advertising
  platform transparency for climate ads
- prohibitions on fossil fuel sponsorship of health, education, sport, and cultural institutions
- accountability for public relations firms involved in misleading campaigns

8.9 Work with journalists, fact-checkers, and educators

Health organisations should partner with journalists and fact-checkers to improve the accuracy and visibility of climate-health information. This includes

- health briefings for climate and political journalists
- rapid access to health experts during climate disasters
- explainers on health impacts of fossil fuels
- case studies from clinics and communities
- training on greenwashing and commercial determinants of health
- support for local-language fact-checking

8.10 Protect health messengers and strengthen information resilience within the health sector

Health professionals speaking about climate may face abuse, harassment, reputational attacks, or political backlash. Silencing health voices has public health consequences: it weakens public understanding of climate risks, reduces trust in evidence-based guidance, and makes it easier for misleading narratives to dominate public debate. Health institutions must therefore defend their staff and members when they communicate evidence in the public interest.

At the same time, health professionals are not immune to disinformation. Like the wider public, they may be exposed to misleading claims about climate science, fossil fuels, clean energy, vaccines, air pollution, heat risks, or climate policies. Professional authority can unintentionally amplify harm if health workers act on inaccurate information, personal biases, or politicised narratives. Protecting health messengers must therefore include building information resilience within the health sector itself.

- communication training on climate and health
- basic training on misinformation tactics, greenwashing, and conflicts of interest
- access to trusted, regularly updated evidence briefs
- peer-review or expert-support systems for public-facing statements legal and digital security support
- rapid solidarity statements when health professionals are attacked
- clear protocols for harassment, abuse, and threats
- peer networks for health professionals communicating on climate
- institutional backing for evidence-based public communication guidance on avoiding amplification of false claims
- conflict-of-interest policies to prevent fossil fuel influence in health messaging

Health workers should be supported to speak clearly, but also responsibly. That means communicating what is known, acknowledging uncertainty where it exists, correcting errors quickly, and grounding public statements in credible evidence.

Protecting health messengers is not only about defending individuals from attack; it is also about ensuring that the health sector remains a trusted source of accurate, independent, and public-interest climate information.

Global Initiative for Information Integrity on Climate Change

The Global Initiative for Information Integrity on Climate Change was launched at the G20 Summit in November 2024 as a coordinated global response to climate misinformation and disinformation. It is structured around three pillars:

- **A Global Fund**
  To support research, investigative journalism and strategic communications
- **An institutional agenda**
  To integrate information integrity into policy; and
- **Global communication campaigns**

To promote accurate climate information and counter misinformation. The initiative is politically and institutionally significant. It is co-chaired by Brazil, the UN and UNESCO, with UNFCCC and member states engaged through its Steering Committee. Its Advisory Group also includes key international institutions such as the International Organization for Migration (IOM), the World Meteorological Organization (WMO) and the Intergovernmental Panel on Climate Change (IPCC), further strengthening its scientific, technical and multilateral credibility. The Initiative's Global Fund is hosted by UNESCO, ensuring alignment with UN standards of transparency and accountability. The Initiative therefore comes with strong multilateral legitimacy and is already positioned within the UN system as a key vehicle for protecting the science-policy interface on climate change.

The initiative has also gained momentum through the COP30 Declaration on Information Integrity on Climate Change currently signed by 26 countries including the European Union, growing membership, the operationalisation of a Global Fund, and the recognition of information integrity as a key lever for climate action in COP processes

[70] United Nations Educational, Scientific and Cultural Organisation, "G20: Leaders' Summit: Brazil, UNESCO and UN launch Global Initiative for Information Integrity on Climate Change," 19 November 2024. https://www.unesco.org/en/articles/g20-leaders-summit-brazil-unesco-and-un-launch-global-initiative-information-integrity-climate

[71] United Nations Framework Convention on Climate Change, "Countries Seal Landmark Declaration at COP30—Marking First Time Information Integrity Is Prioritized at UN Climate Conference," November 12, 2025, https://unfccc.int/news/countries-seal-landmark-declaration- at-cop30 -marking-first-time-information-integrity-is-prioritized



9

Recommendations

For WHO

- **Recognise climate disinformation** as a public health threat and a barrier to climate action.
- **Develop guidance** on climate-health infodemic management.
- **Build capacity** of health messengers as key figure to tackle misinformation.
- **Integrate climate disinformation** into WHO's work on risk communication, community engagement, health emergencies, digital health, and commercial determinants of health.
- **Develop evidence-based guidance** on communicating climate-related human mobility and displacement, helping to counter misinformation, stigma, and alarmist narratives while supporting equitable, health-centred humanitarian and adaptation responses.
- **Support Member States** in building capacity to monitor and respond to climate-health misinformation.
- **Develop model conflict-of-interest safeguards** for fossil fuel industry engagement in health policy spaces.
- **Issue guidance** on fossil fuel advertising, sponsorship, greenwashing, and health institutional integrity.
- **Support research** on climate disinformation and health impacts, especially in low- and middle-income countries.
- **Work with** UNESCO, UNDP, UNEP, WMO, UNICEF, and other UN agencies to connect information integrity, climate action, and health protection.
- **Include information integrity** as part of climate-resilient health systems and health-sector

Recommendations

For Member States

Governments should:

- **Treat access to accurate climate and health information** as part of the right to health.
- **Ensure** that public health communication on climate risks is timely, accessible, multilingual, and evidence-based.
- **Integrate misinformation response** into heat, wildfire, flood, storm, drought, and infectious disease preparedness.
- **Ensure that public communication** on climate-related human mobility and displacement is evidence-based and avoids narratives that contribute to stigma, discrimination, xenophobia, or barriers to humanitarian protection and access to health services.
- **Require transparency** of fossil fuel lobbying, political spending, sponsorship, and advertising
- **Regulate misleading environmental claims** and fossil fuel greenwashing.
- **Protect climate and health policy** from conflicts of interest.
- **Support** independent public interest journalism and fact-checking.
- **Invest in climate and health literacy** in schools, health training, and public communication.
- **Ensure that climate policies are fair** and socially protective so misinformation cannot exploit legitimate economic insecurity.
- **Hold digital platforms accountable** for amplification of harmful climate disinformation.
- **Protect** scientists, health workers, journalists, and community advocates from harassment and intimidation.

Recommendations

For Funders

- **Invest in climate-health information integrity** as a core public health priority.
- **Support independent research** on climate disinformation in the Global South.
- **Fund rapid-response communication** capacity for health civil society.
- **Support legal, digital, and psychosocial protection** for targeted messengers.
- **Fund local-language** journalism and fact-checking.
- **Support community-led documentation** of climate and fossil fuel health harms.
- **Avoid conflicts of interest** by refusing funding arrangements with fossil fuel or other health-harming industries.

Recommendations

For Health Professional Associations

- **Adopt** fossil fuel conflict-of-interest policies.
- **Refuse** fossil fuel-linked sponsorship and advertising.
- **Train members** to communicate climate and health
- **Create** rapid-response expert groups.
- **Support** members facing harassment.
- **Partner with** community organisations and frontline groups.
- **Advocate for** clean air, fossil fuel phase-out, heat protection, resilient health systems, and just transition policies.
- **Promote** accurate, evidence-based communication on the health dimensions of climate-related mobility and displacement, while challenging misinformation and oversimplified narratives.
- **Publicly correct** harmful climate-health misinformation.
- **Promote climate and health education** in medical, nursing, public health, and allied health curricula.
- **Join** cross-sector coalitions on information integrity.

Recommendations

For Civil Society

- **Document and expose** climate disinformation and greenwashing.
- **Build coalitions** between health groups, climate advocates, journalists, fact-checkers, youth, labour, Indigenous Peoples, and environmental justice movements.
- **Develop accessible** public education materials.
- **Support affected communities** to tell their stories safely and on their own terms.
- **Advocate** for advertising restrictions, lobbying transparency, and conflict-of-interest rules.
- **Monitor** policy spaces for fossil fuel influence.
- **Challenge misleading narratives** that pit health, jobs, development, and climate action against each other.
- **Promote just transition policies** that address genuine concerns about livelihoods and access.
- **Build** multilingual communication networks.
- **Hold institutions accountable** when they amplify disinformation or accept conflicted funding.

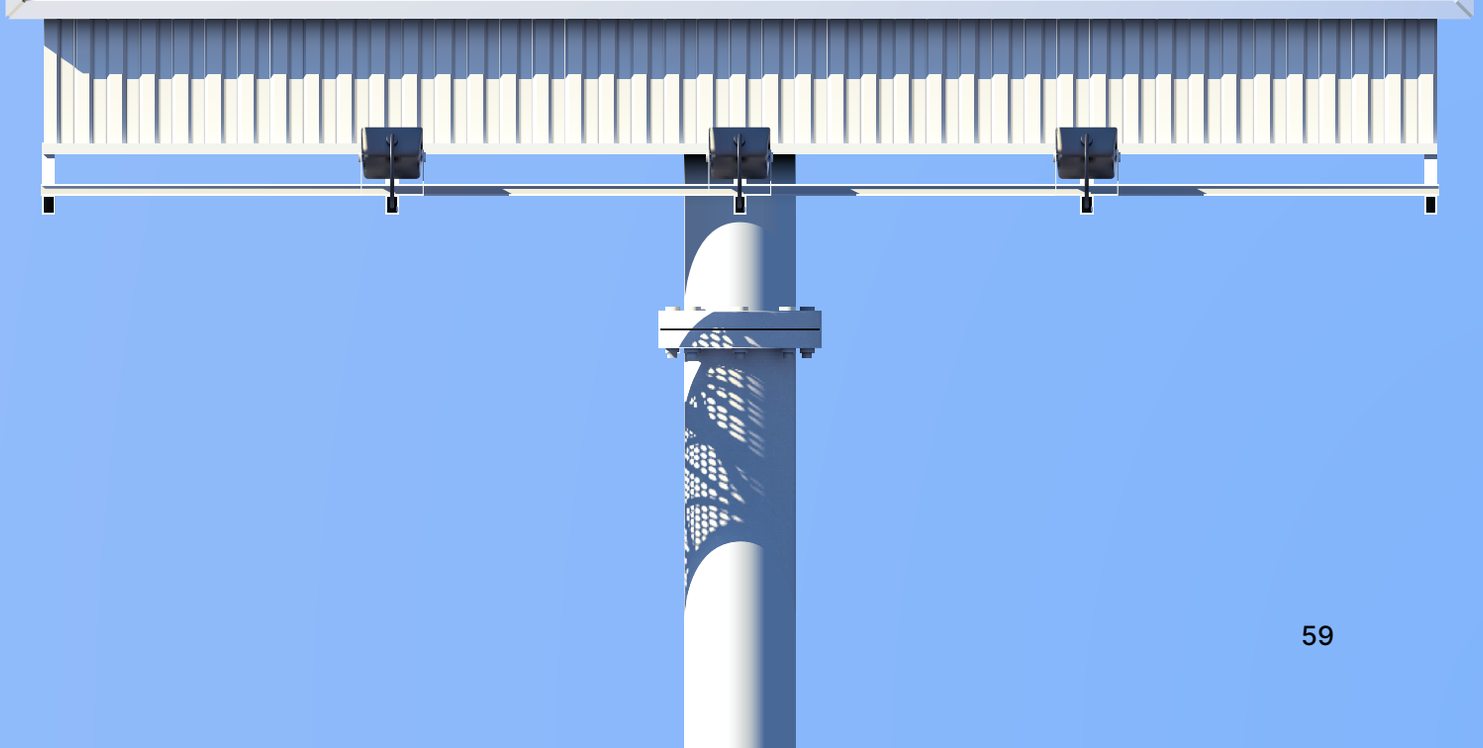
Conclusion

Climate disinformation is not merely a challenge for climate scientists or communications teams. It is a public health threat that delays life-saving action, weakens trust, protects harmful commercial interests, and increases exposure to preventable risks. The health community has a responsibility to respond.

Public health has faced this before. Tobacco control taught us that industries whose products harm health will often manufacture doubt and interfere with policy. COVID-19 taught us that misinformation can spread faster than institutions can respond, and that trust, preparedness, and community engagement are essential. Vaccine confidence work taught us that facts must be delivered through relationships. Emergency risk communication taught us that speed, clarity, and credibility save lives.

The climate crisis now requires the same seriousness. Health professionals and institutions must help protect the integrity of public information, expose disinformation that endangers health, resist fossil fuel influence, and communicate the health case for urgent, equitable climate action. Climate and health education should also explicitly include air pollution and air quality, ensuring that health professionals understand and can communicate the direct links between fossil fuel combustion, harmful exposures, disease, and climate change.

A healthier information environment is not a communications luxury. It is a condition for climate justice, public health, and the right to a healthy future.



Resources

Information Integrity/ Mis/ Disinformation

Information Integrity about Climate Science: A Systematic Review

A high-level précis of this Synthesis Report can be found in the Summary for Policymakers report, Facts, Fakes, and Climate Science.

The human response to the climate crisis is being obstructed and delayed by the production and circulation of misleading information about the nature of climate change and the available solutions.

The findings of this study indicate that powerful actors—including corporations, governments, and political parties—intentionally spread inaccurate or misleading narratives about anthropogenic climate change. These narratives circulate across digital, broadcast, and interpersonal communication channels. The result is a decline in public trust, diminished policy coordination, and a feedback loop between scientific denialism and political inaction.

ISBN: 978-3-03983-008-4
URL: https://www.ipie.info/research/sr2025-1
DOI: http://doi.org/10.61452/BTZP3426

Citation: International Panel on the Information Environment [E. Elbeyi, K. Bruhn Jensen, M. Aronczyk, J. Asuka, G. Ceylan, J. Cook, G. Erdelyi, H. Ford, C. Milani, E. Mustafaraj, F. Ogenga, S. Yadin, P. N. Howard, S. Valenzuela (eds.)], "Information Integrity about Climate Science: A Systematic Review," Zurich, Switzerland: IPIE, 2025. Synthesis Report, SR2025.1, doi: 10.61452/BTZP3426.

Climate Obstruction: A Global Assessment

J. Timmons Roberts (ed.), Carlos R. S. Milani (ed.), Jennifer Jacquet (ed.), Christian Downie (ed.)

URL: https://academic.oup.com/book/61469
Published: 14 October 2025

Climate Action Against Disinformation

URL: https://caad.info/what-is-misinformation-disinformation/

Flame Wars: Misinformation and Wildfire in Canada's Climate Conversation

In June 2023, as Canada's forests burned, false and misleading information surged into online conversations about the wildfires. References to lasers, drones, weather control, eco-terrorism, and state-driven arson circulated widely as people sought information on evacuation, support services, loved ones, and fellow residents. The chaos affected political leaders managing the crisis, firefighting, evacuation routes, media reporting, and, of course, people making hard decisions about their health and the safety of their communities. Working as a group with expertise in digital networks, climate communication, and misinformation, researchers at Carleton University's Re.Climate, McGill's Centre for Media, Technology, and Democracy (MTD), McGill's Media Ecosystem Observatory (MEO), and Climate Action Against Disinformation (CAAD) investigated what happened by mapping Canada's climate conversation on Twitter/X. We set out to understand the information environment during "the most devastating wildfires in Canada's history"
(The Editorial Board, 2024), how it shaped climate conversations, and what to expect with fires to come.

URL: https://meo.ca/work/flame-wars

Factsheet - legal, science and societal support for the fossil ad ban

This factsheet is meant for, e.g., municipal councillors, city boards, journalists and campaigners. It contains science, evidence about societal support and legal proof in support of a fossil ad ban.

URL: https://www.worldwithoutfossilads.org/factsheet-legal-science-societal-support-for-the-fossil-ad-ban/

Frequently Asked Questions about Fossil Ad Bans

Advertising that promotes the fossil fuel industry, air travel, cruise travel and fossil fuelled cars is harmful for our health and our planet. So why wait? It is time we make fossil ads history and prohibit fossil advertising.

URL: https://www.worldwithoutfossilads.org/frequently-asked-questions-2/

Advocacy tools from the World Health Organisation:

WHO Air Pollution and Health Training Toolkit (APHT)

The WHO Air Pollution and Health Training Toolkit (APHT) equips health workers with the knowledge and practical tools to understand, communicate and respond to the health impacts of air pollution. It covers ambient and household air pollution, associated health risks, the role of the health workforce, and clean energy solutions. Designed for both clinical and public health professionals, the toolkit helps translate scientific evidence into patient advice, public communication and advocacy for cleaner air. A train-the-trainer approach supports workshops, online learning and wider capacity-building within health systems and communities. Ultimately, it strengthens the ability of health professionals to become credible and influential advocates for policies that protect health and reduce air pollution.

URL: https://www.ipie.info/research/sr2025-1

WHO Climate Change and Health Training Programme

The WHO Climate Change and Health Training Programme provides health professionals, policymakers and trainers with practical knowledge and skills to address the growing health impacts of climate change. The programme covers climate-related health risks and vulnerability assessments, adaptation planning, low-carbon and climate-resilient health systems, and the role of health in national and global climate policy. Participants learn to develop Health National Adaptation Plans, strengthen health considerations in NDCs, assess health-sector emissions, and use climate information for health decision-making. Designed primarily as a train-the-trainer resource, it includes presentation materials, a participant manual and facilitator guidance for in-person or live virtual training. It supports the health workforce to move from understanding the climate–health connection to designing and implementing evidence-based action.

URL: https://www.who.int/tools/climate-change-and-health-training-programme

WHO Climate Change and Health Training Programme

The WHO Beat the Heat Initiative, developed under WHO's Sport for Health programme in collaboration with FIFA and partners including WMO and ILO, aims to protect workers, spectators and communities from extreme heat, air pollution and harmful UV exposure. Focusing on workplaces, sporting events and mass gatherings, it develops practical guidelines and protocols for managing heat-related health risks, while strengthening health-system preparedness, risk communication and community engagement. The initiative promotes stronger standards, policies and monitoring to integrate heat protection into occupational health and major-event planning.

URL: https://www.who.int/tools/climate-change-and-health-training-programme

WHO-Civil Society Working Group On Climate Change and Health

Established in 2019 by WHO Director-General Tedros Adhanom Ghebreyesus, the WHO Civil Society Working Group on Climate and Health aims to foster a strong and sustained health voice, informing decision-making on climate change nationally and internationally, and driving urgent action on climate change. The group is co-chaired by the Assistant Director-General, Health Promotion, Disease Prevention and Care, Dr Bruce Aylward and the Executive Director of the Global Climate and Health Alliance, Dr Jeni Miller.

GLOBAL
CLIMATE & HEALTH
ALLIANCE

The Global Climate and Health Alliance (GCHA) works at the forefront of a growing global movement of health professionals and health and development organisations dedicated to promoting a healthy, equitable, and sustainable future for all. We address the climate crisis through evidence-based advocacy, policy, movement building, research and strategic communications. With 300+ organisational members, from every region and reaching over 125 countries, the Alliance co-chair the WHO-Civil Society Working Group on Climate & Health and collaborates with organisations and agencies around the world to ensure that people's health is protected in the climate change era, in national, regional, and international decision- making. We are committed to tackling the climate crisis to preserve a healthy home for humanity.