

Training Manual

for awareness-raising workshops
on climate change and health
for medical school professors and lecturers



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Table of Contents

→ Aim of the workshop	4
→ Target groups	4
→ Expected outcomes	4
→ Duration and size of the workshop	5
→ Parts of the workshop	7
→ How to use this Training Manual	7
→ Outline of the Workshop	8
→ Handouts for Sessions.....	16
→ Session 1.1. ICEBREAKING.....	17
→ Session 1.2. What does climate change mean to you?	19
→ Session 1.3. Are you affected by climate change in your personal life?.....	22
→ Session 1.4. Are you affected by climate change in your professional life?.....	25
→ Session 1.5. Closing the workshop on Day 1.....	28
→ Session 2.1. Problem-based discussion.....	29
→ Session 2.2. Challenges and boosters	32
→ Session 2.3. Wrap-up	34

Aim of the workshop

The Climate Change and Health Awareness-Raising Workshop is designed with a pivotal objective: to arm medical school professors and lecturers with comprehensive knowledge and essential tools, enabling them to grasp the complex intersection between climate change and health. During a two-day immersive Workshop, participants engage in dynamic learning experiences. This equips them with the expertise to integrate climate change and health topics into medical education learning materials.

The Workshop serves as a catalyst for transformative change, empowering educators to broaden the scope of their teaching and research endeavours. By the workshop's conclusion, attendees are poised to navigate the complexities of climate change's profound implications for human health, equipped with a nuanced understanding of its multifaceted impacts. Armed with this knowledge, participants are inspired to infuse climate change and health principles into their professional approaches, fostering a generation of medical professionals mindful of the interconnectedness between environmental factors and health outcomes.

Ultimately, the Climate Change and Health Awareness-Raising Workshop represents a pivotal step towards effecting systemic change within medical education and motivation necessary to cultivate a cadre of health and healthcare professionals who

are not only adept clinicians but also stewards of environmental and public health resilience.

Target groups

In addition to professors and lecturers from medical schools, the Workshop is targeted at health and health care professionals from various disciplines, including but not limited to general practitioners, public health and environmental health professionals, who also constitute an important target audience. Their direct interaction with patients positions them as influential advocates for climate-conscious healthcare practices and policies.

Expected outcomes

The Workshop is expected to harvest a number of tangible outcomes that will collectively contribute to the promotion of climate-resilient healthcare practices and the development of a more informed and proactive medical community. Participants are expected to acquire a comprehensive understanding of the tie between climate change and human health, enabling them to recognize and address the various direct and indirect health impacts stemming from environmental degradation and climate variability. Furthermore, after the workshop, educators can be ready to effectively integrate climate change and health concepts into their lectures and research efforts, and make a significant contribution to the education of future health professionals.

The Workshop is expected to empower participants to engage in interdisciplinary collaboration, initiating partnerships between healthcare providers, environmental scientists, policymakers, and community stakeholders to develop innovative solutions for mitigating the health effects of climate change. Workshop participants will leave with practical strategies for training a new generation of climate-aware physicians and supporting sustainable infrastructure to implement climate-resilient patient care protocols.

The overall expected outcome of the Workshop is to contribute to the development of a more resilient and proactive medical community with the knowledge, skills and motivation to address the multiple health challenges posed by climate change and to support policies and practices that prioritise preventive measures against the harmful health impact of climate change.

Duration and size of the workshop

The Workshops span two (consecutive) days, comprising a comprehensive program of activities, discussions, and practical learning experiences.

The Workshop is designed to ensure optimal engagement and personalized interaction among participants. With this aim in mind, the Workshop is structured to accommodate an optimum size of 16 participants, fostering an intimate learning environment conducive to deep

exploration and meaningful exchange of ideas.

However, depending on the interest in this critical topic, the maximum number of participants in the workshop is set at 20 participants. This number of participants allows for a slightly larger group while still preserving the quality of interaction and individualized attention essential for effective learning and skill development.

By maintaining the balance between participant numbers and workshop dynamics, organizers should ensure that each attendee receives ample opportunity for active participation, collaborative engagement. This approach not only maximizes the impact of the Workshop on individual participants but also enhances the collective learning experience by fostering a diverse range of perspectives and insights.

The limited size of the Workshop facilitates also deeper connections and networking opportunities among participants, fostering long-lasting collaborations and support networks beyond the Workshop. This ensures that the knowledge and skills acquired are effectively translated into actionable initiatives and sustainable practices within participants' respective spheres of influence, thereby amplifying the Workshop's overall impact on climate-resilient healthcare practices and advocacy.

Parts of the workshop

The Workshop consists of two integral parts: on the first day, participants will be prompted to reflect on and express how climate change affects their personal and professional lives, aiming to build self-awareness and empathy. This will set the stage for understanding the broader impacts of climate change and create a basis for collaborative learning.

The focus of the second day will be on encouraging collaboration, engagement, and multi-faceted dialogue among participants. Through interactive discussions and activities, participants will explore the links between the topics they lecture, and the specific health challenges posed by climate change. They will also identify the obstacles and opportunities for integrating climate change and health issues into current learning materials. By taking this comprehensive approach, participants will gain insights into the complexities of addressing climate change in educational settings and will be empowered to advocate for meaningful change in their respective fields.

- the role of the moderator in applying the method;
- the tools required;
- the expected results of the session.

The workshop consists of two separate training days, but the modular design of the sessions allows for flexibility. Thus, one or more sessions can be selected and delivered when time is limited or a specific topic needs to be covered. The methods and sessions provided can be freely combined, giving users a flexible and versatile tool to raise awareness among medical school professors and lecturers regarding the relevance of climate change and health.

How to use this Training Manual

The Training Manual is divided into two parts. The first part includes a detailed outline of each session's goal, the recommended method for achieving the goal, and the timeframes. The second part provides:

- a detailed description of the recommended method for each session;

Outline of the Workshop

Day 1: Personal perspectives on Climate Change		
9:00 – 10:00	Session 1.1. Icebreaking	
	Session Goals: the session aims to help participants feel comfortable with each other during the workshop and foster a sense of trust and fellowship from the outset. It also seeks to create an environment that promotes open communication and personal growth.	
	Recommended method: guided conversation	
	Time frame	Activities
	24' (1.5'/person)	Participants' introduction
	24' (1.5'/person)	Participant's motivations and expectations for attending
10:00 – 12:30	12'	Presentation of the workshop's objectives (delivered by the moderator)
	Session 1.2. What does climate change mean to you?	
	Session Goals: the session encourages participants to reflect on their recent understanding and general experiences with climate change, including their beliefs, concerns, fears, hopes, and other opinions.	
	Recommended method: Mindmap	
	Time frame	Activities
	5'	Description of the method and the assignment
	25'	Group work: developing Mind Maps
	20'	<i>Coffee break</i>
	40' (4x10')	Presenting each group's Mind Map
	10'	Discussing Mind Maps
	20'	Presentation on climate change – delivered by the moderator (causing factors, typical characteristics, key concepts related such as mitigation, resilience, adaptation, etc.)
	20'	Discussion on the similarities and differences between the content of Mind Maps and the content of the moderator's presentation
12:30 – 1:30	60'	<i>Lunch break</i>

Session 1.3. Are you affected by climate change in your personal life?		
1:30 – 2:50	Session Goals: providing an opportunity for participants to reflect on and articulate how climate change influences their personal lives, fostering self-awareness and empathy among participants	
	Recommended method: Think-Pair-Share method	
	Time frame	Activities
	5'	Description of the method and the assignment
	7'	Think phase: reflect individually on the question, „How is your personal life affected by climate change?“
	13'	Pair phase: discussion the personal reflections on climate change with the pair.
	55'	Share phase: pairs share their most relevant common points about personal experiences, reflections, and insights related to climate change.
2:50 – 3:10	20'	<i>Coffee break</i>

3:10 – 4:30	Session 1.4. Are you affected by climate change in your professional life?	
	Session Goals: providing the opportunity for participants to reflect on and articulate how climate change influences their professional lives, fostering self-awareness and empathy among participants	
	Recommended method: World Café	
	Time frame	Activities
	5'	Description of the method and the assignment
	20' (10' group work) (5+5' presentation and reflections)	First round The question up for discussion is: Have you experienced that climate change has influenced the priorities and strategies of your professional tasks?
	20' (10' group work) (5+5' presentation and reflections)	Second round The question up for discussion is: How do you expect climate change affecting your professional activities over the next five years?
	20' (10' group work) (5+5' presentation and reflections)	Third round The question up for discussion is: In your opinion, would climate change necessitate any shift in the priorities and strategies of your professional tasks?
	20' (10' group work) (5+5' presentation and reflections)	Fourth round The question up for discussion is: Do you believe that greater collaboration among various medical fields will be necessary to effectively address the impacts of climate change?
4:30 – 5:00	5'	Summary – delivered by the moderator
	Session 1.5. Closing the workshop of Day 1	
	Session Goals: allowing participants to reflect on their individual experiences throughout the workshop, including what they have learned, how they have grown, and any new perspectives gained	
	Recommended methods: guided conversation	
	Time frame	Activities
4:30 – 5:00	24' (1.5'/person)	Sharing experiences, feelings and comments
	6'	Closing remarks – delivered by the moderator

Day 2: Climate Change and Medical Education

Session 2.1.1. Problem-based discussion

Session Goals: promoting collaboration, engagement, and multi-approach dialogue so that the participants explore connections between their current learning materials and specific health challenges of climate change

Recommended method: Jigsaw method

Time frame

Activities

5'

Description of the method and the assignment

3'

Forming home groups and Material review

Topic for discussion: Heatwave and heat-related risks

2'

Forming expert groups

9:00 – 9:45

15'

Expert group discussions

Suggested material for the discussion:

→ [doi.org/10.1016/S0140-6736\(21\)01208-3](https://doi.org/10.1016/S0140-6736(21)01208-3)

Suggested subtopics for the discussion:

→ Factors affecting heat strain, illness, and death

→ Physical activity (including outdoor work) and heat exposure

→ Built environment and heat-related health risks

→ Major trends influencing heat-related illness and death

2'

Jigsaw rotation

10'

Synthesis and Discussion

10'

Incorporation of new insights

9:45 - 10:30	5'	Description of the assignment
	3'	Forming home groups and Material review <i>Topic for discussion: Mental burden of climate change</i>
	2'	Forming expert groups
	15'	Expert group discussions Suggested material for the discussion: → doi.org/10.1186/s13033-018-0210-6 Suggested subtopics for the discussion: → Key challenges of attributing climate change to mental health → Opportunities of attributing mental health to climate change → Direct mental health consequences of climate change → Indirect mental health consequences of climate change → Actions to address climate change and mental health
	2'	Jigsaw rotation
	10'	Synthesis and Discussion
	10'	Incorporation of new insights
10:30-10:50	20'	<i>Coffee break</i>

Session 2.1.2. Problem-based discussion	
Session Goals: see above in Session 2.1.1.	
Recommended methods: Jigsaw method	
Time frame	Activities
5'	Description of the method and the assignment
3'	Forming home groups and Material review <i>Topic for discussion: Infectious diseases and climate change</i>
2'	Forming expert groups
10:50 – 11:35	Expert group discussions Suggested material for the discussion: → doi.org/10.1016/j.lanepe.2021.100230 Suggested subtopics for the discussion: → Vector-borne diseases and climate change → Food-borne diseases and climate change → Water-borne diseases and climate change → Mitigation and Adaptation Strategies for infectious diseases resulting from climate change
	2' Jigsaw rotation
	10' Synthesis and Discussion
	10' Incorporation of new insights

11:35 – 12:20	5'	Description of the assignment
	3'	Forming home groups and Material review <i>Topic for discussion: Prevention of cardiovascular disease – minimize the impact of climate change</i>
	2'	Forming expert groups
	15'	Expert group discussions Suggested material for the discussion: → doi.org/10.1016/j.ajpc.2022.100391 Suggested subtopics for the discussion: → Lifestyle and medication aspects of prevention → Supporting prevention through healthcare system-related initiatives → Supporting prevention through personal and policy actions → Communication aspects of prevention
	2'	Jigsaw rotation of knowledge in home groups
	10'	Synthesis and Discussion
	10'	Incorporation of new insights
12:20 – 1:20	60'	<i>Lunch break</i>
1:20 – 2:50	Session 2.2. Challenges and boosters	
	Session Goals: identify barriers and facilitators to the integration of climate change and health issues into current medical school curricula	
	Recommended method: Causal Loop Diagram	
	Time frame	Activities
	10'	Description of the method and the assignment
	10'	Brainstorming phase: identify barriers and facilitators in a wider context including institutional policies, faculty expertise, student interest, resource availability, and others
	20'	Causal Loop Diagram Development phase
2:50 – 3:10	40' (4x7' presentation) (4x3' reflection)	Group presentations and reflections
	20'	<i>Coffee break</i>

Session 2.3. Wrap-up		
3:10 – 4:15	Session Goals: encouraging participants to reflect on their thoughts, feelings, and reactions to the workshop, thus promoting self-awareness and self-reflection. It also helps them relate the workshop content to their experiences, beliefs, and perspectives, making it more relevant and meaningful.	
	Recommended method: Exit ticket	
	Time frame	Activities
	5'	Description of the method and the assignment
	10'	Creating the „Exit ticket” (Those who desire to do so have the chance to share exit tickets in the closing round.)
	48' (16x3')	Closing round
	2'	Closing remarks – delivered by the moderator

Handouts for Sessions

Session 1.1. ICEBREAKING

Session Goals

The session aims to help participants feel comfortable with each other during the workshop and foster a sense of trust and fellowship from the outset. It also seeks to create an environment that promotes open communication and personal growth.

Recommended method(s): guided conversation

Description of the guided conversation method

The guided conversation is divided into three parts. In the first part, the moderator asks the participants to introduce themselves by sharing the most relevant information on their personal and professional background within a 90-second time frame.

In the second part, participants will have another 90 seconds to share their motivations and expectations for participating in the workshop.

In the third part, the moderator will deliver a brief 6-7 minute presentation on the objectives and structure of the workshop, emphasizing the workshop's components and highlighting the availability and duration of coffee and lunch breaks. After the presentation, a 5-minute opportunity for questions and answers must be provided.

Role of the moderator

The moderator should play a significant role to lay the foundation for a successful and productive learning experience by establishing rapport, fostering engagement, and creating a positive and inclusive environment for all participants. Achieving these points, moderator should support

- creating a positive atmosphere for the workshop, encouraging participants and cultivating an environment conducive to learning and collaboration;
- help break down social barriers and hierarchies within the group, encouraging open communication and participation from everyone, regardless of their background or role.

Moreover, moderator should introduce the workshop agenda, objectives, and expectations, ensuring that participants have a clear understanding of what will be covered and what is expected of them.

The moderator also should monitor the time allocated for introductions to ensure each participant can share within the assigned timeframe.

As a last part of the session, the moderator should lead a short reflection or debriefing to allow participants to share their thoughts and feelings about the introduction activity. Encourage feedback on what went well and any areas for improvement.

Expected outcomes of the session

The session aims to create a collaborative atmosphere where participants are encouraged to collaborate, share resources, and support each other's learning. This will help build trust among the participants and set the stage for a workshop characterized by collaboration and support. As a result, participants are expected to feel more confident sharing their experiences and learning from others, contributing to their personal and professional development. The session also aims to facilitate future open dialogues, allowing for the exchange of diverse perspectives and promoting mutual understanding.

Required equipment

No equipment is required.

Session 1.2. What does climate change mean to you?

Session Goals

The session encourages participants to reflect on their recent understanding and general experiences with climate change, including their beliefs, concerns, fears, hopes, and other opinions.

Recommended method(s): Mind Map method

Description of the Mind Map method

The Mind Map is a powerful visual tool for organising, analysing, and generating ideas in a structured yet flexible manner. Developed by Tony Buzan, it harnesses the brain's natural associative thinking processes to facilitate creative problem-solving, learning, and communication.

At the centre of a Mind Map is a principal concept or theme, represented by an image or keyword in the page's centre. Radiating outward from this central idea are branches, which represent subtopics, related concepts, or categories. These branches can further split into sub-branches, forming a hierarchical structure that mirrors the brain's natural thought patterns.

One crucial feature of Mind Maps is their nonlinear nature, which allows for simultaneously exploring ideas in multiple directions. This encourages lateral thinking and facilitates the discovery of unexpected connections and insights. Additionally, using colours, symbols, and imagery in Mind Maps stimulates both brain hemispheres, enhancing creativity, memory retention, and engagement. They are

particularly effective when complex information needs to be synthesised and communicated visually, such as during presentations, lectures, meetings, or study sessions.

The Mind Map assignment prompts the workshop participants to identify and visualise the interconnected nature of climate change with various aspects of their lives, such as health, economy, environment, social justice, and personal actions. It fosters creative expression and encourages participants to think outside the box in conceptualising climate change by visually organising their thoughts and ideas. Through creating the Mind Map, participants may gain a deeper understanding of the complexities and implications of climate change, both globally and personally, thus promoting awareness and education.

The assignment also catalyses discussions and exchanges of ideas within the classroom or group setting, leading to further exploration and dialogue about climate change from diverse perspectives.

Additional details about the Mind Map method:

→ <https://help.open.ac.uk/notetaking-techniques/mind-maps>

Role of the moderator

As a first step, the moderator must explain the structure of the session:

1. introduction of the Mind Map method
2. forming groups of participants for group work
3. development of Mind Maps by groups
4. exhibiting the Mind Maps
5. a representative (a speaker) from each group explains the leading points of the Mind Map for the workshop participants
6. a presentation on climate change delivered by the moderator
7. plenary discussion on the similarities and differences between the content of Mind Maps and the content of the moderator's presentation

As a next step, the moderator must explain the fundamental structure of a mind map, emphasizing the central idea or topic at the centre with branches radiating outwards. Then, a short demonstration of creating a Mind Map must be delivered.

Before starting the mind mapping, the moderator forms groups from the participants (at least three groups are recommended). Each group develops its own Mind Map. The central topic is: ***„What thoughts come to mind about climate change?“***

The facilitator hands out flipchart sheets and markers to the groups and schedules time for creating Mind Maps based on the given topic. The moderator moves among participants to provide

guidance, answer questions, and offer feedback as necessary.

Once the Mind Maps have been completed, the moderator hangs them up using Blu Tack and invites the participants to review them. Then, each group speaker explains their Mind Maps' key points. If necessary, the moderator asks clarifying questions during the speakers' presentations that link or strengthen the speakers' thoughts on the central topic.

After the group speakers' presentations, the moderator delivers a presentation on climate change, covering causing factors, typical characteristics, and critical concepts such as mitigation, resilience, adaptation, etc. Following this, the moderator leads a plenary discussion on the similarities and differences between the various Mind Maps and the primary messages of the presentations.

In closing, the moderator summarizes the key takeaways from the session and thanks the participants for their active participation.

Expected outcomes of the session

The expected outcome is a more profound understanding, critical thinking, and meaningful engagement with climate change, considering it a complex and urgent global issue closely linked to participants' daily lives.

This experience is expected to inspire participants to consider climate change a priority and to continue exploring their perspectives, involvement, and responsibilities in this context, including environmental impacts, societal

implications, economic consequences, and personal experiences. Participants may also articulate their emotional responses to climate change, such as concern, fear, anger, hope, or determination.

Finally, participants may reflect on their role in contributing to or mitigating climate change and their responsibilities and potential actions for addressing the issue. These experiences increase the likelihood that the health impacts of climate change will be prioritized and emphasized during the participants' lectures.

Required equipment:

Flipchart sheets, markers, Blu Tack reusable adhesives

Session 1.3. Are you affected by climate change in your personal life?

Session Goals

This session aims to provide an opportunity for participants to reflect on and articulate how climate change influences their personal lives, fostering self-awareness and empathy among participants.

Recommended method(s): Think-Pair-Share method

Description of the Think-Pair-Share method

The Think-Pair-Share method is a structured and interactive approach to explore personal experiences with specific problems. First, participants are given a few minutes to reflect individually on the question. The question of these session is „How does climate change affect your personal life?“ This first part allows participants for introspection and personal insight.

Next, participants pair up with a partner to discuss their reflections. This stage encourages a deeper exploration of individual experiences in a more intimate setting, fostering trust and openness between participants. Partners share their perspectives, experiences, and insights from the initial reflection.

After the pair discussion, the workshop reconvenes as a whole group for the Share phase. Each pair shares a conversation summary, highlighting common themes, differences, or unique

perspectives. This stage promotes collective understanding and empathy among participants as they recognize the varied ways the problem impacts individuals.

Role of the moderator

The moderator must clearly explain the Think-Pair-Share method to ensure participants understand each phase (Think, Pair, Share) and their roles within each. The moderator must also set ground rules for respectful listening, constructive feedback, and open communication. A set of ground roles may be borrowed from the Conversation Café method¹:

1. Suspend judgment as best you can
2. Respect one other
3. Seek to understand rather than persuade
4. Invite and honour diverse opinions
5. Speak what has personal heart and meaning
6. Go for honesty and depth without going on and on and on

With these ground roles, the moderator should emphasize the importance of equal participation and confidentiality where needed.

Besides, the moderator should circulate the room to observe discussions, ensuring that pairs stay on topic and engage in meaningful dialogue. Offer

→ ¹ www.liberatingstructures.com/17-conversation-cafe

support and guidance if pairs seem stuck or off track. Intervene gently if one person dominates the conversation, encouraging quieter participants to share their thoughts.

Perhaps the most relevant role of the moderator is to facilitate the Sharing phase: inviting pairs to share essential insights from their discussions with the larger group. Ensure that everyone has an opportunity to contribute. Highlight common themes, unique perspectives, and significant insights shared by participants. This helps in synthesizing information and reinforcing learning by periodically summarising the group's progress, reinforcing the value of the activity and the insights gained.

The moderator must be prepared to mediate if disagreements arise, guiding participants towards respectful and constructive resolution. A helpful approach is for the moderator to ensure that each participant has the opportunity to fully express their viewpoint. By asking open-ended questions, the moderator can uncover more information and gain a deeper understanding of the root cause of the disagreement. Additionally, paraphrasing what each person says can help ensure clarity and demonstrate acknowledgement of their perspective. The moderator can also emphasize shared goals or common ground among participants, shifting the focus from differences to similarities. The moderator should kindly remind participants of the ground rules if discussions become intense. Once the disagreement has

been mediated, following up with the participants involved is essential to ensure they feel that the issue was resolved respectfully and constructively.

Lastly, managing the timing of each phase is crucial to ensure the activity stays on track and all parts are completed within the allotted time. This creates a constructive and organized environment for meaningful engagement and learning.

Expected outcomes of the session

Through the Think-Pair-Share method, participants have an opportunity to reflect on how climate change affects their lives, leading to personal insights and heightened awareness. This reflective process may allow individuals to articulate their experiences and concerns about climate change. By linking the abstract concept of climate change to personal experiences, participants are expected to develop a more tangible and emotional connection to the issue. This connection can enhance their motivation to engage with and address climate change in their lives and communities.

In the pair discussions, participants are expected to engage in meaningful dialogue, sharing their reflections and listening to their partner's perspectives. This collaborative exchange will foster mutual understanding and empathy as participants learn about the diverse ways in which climate change impacts different lives. This experience can contribute to revealing shared concerns and individual challenges

related to climate change, providing a comprehensive view of the issue.

Moreover, hearing varied personal stories can raise awareness about the multifaceted impact of climate change, fostering empathy among people impacted by it in general.

Required equipment

No equipment is required.

Session 1.4. Are you affected by climate change in your professional life?

Session Goals

The session aims to provide an opportunity for participants to reflect on and articulate how climate change influences their professional lives, fostering self-awareness and empathy among participants.

Recommended method(s): World Café method

Description of the World Café method

The World Café method is a participatory group discussion technique designed to facilitate dialogue and collaborative thinking among participants in a relaxed and informal setting. The World Café method typically involves participants rotating between small tables, with each table focused on the same specific topic or question related to the central theme of the conversation. As participants move between tables, they engage in structured conversations, share ideas, and build upon each other's contributions.

A World Café workshop is structured in the following way:

1. The venue is arranged with four-seater tables based on the number of participants. There should be an equal number of participants at each table, with no more than four at each table. Each table must have a Flipchart sheet, markers, and a block of sticky notes. Participants use these materials to jot down ideas, draw mind maps, or capture relevant points during small-group discussions.
2. Participants are welcomed and seated at the tables. The moderator explains that the workshop proceeds through multiple conversation rounds, each focused on a specific question related to the workshop's overarching topic. Each round lasts around 20 minutes. This 20-minute timeframe includes 10 minutes of small-group conversation at the table, 5 minutes of presentation that summarises in up to three points the most relevant elements or results of the discussion and five minutes for plenary reflections from other participants of the workshop. The moderator also explains that one person needs to be designated as the „table host“.
3. After the small-group discussion, the group comes together in a plenary session, which is named „the harvest,“ to share insights and findings from their conversations. The table host presents the key ideas, opinions, and results that emerged during the small-group discussion. These insights need to be recorded on sticky notes, and the table host should stick them to the Flipchart board to make them visible. These notes are also useful when the moderator summarises the results of the entire workshop.
4. After a round, participants rotate to different tables and discuss the following question. This rotation ensures a mix of perspectives and ideas. The „table host“ remains at the table. Once the new small group has been formed, a new host is selected. The re-settled groups discuss the new question, and the recent table host

represents the key outcomes during the presentation phase. This process repeats until all the questions are discussed.

5. The workshop concludes with a closing session, during which the moderator summarizes the key outcomes and reflects on the overall experience. Participants are encouraged to consider how they will integrate the insights gained into their professional or personal lives.

The World Café small-group conversations and harvest sessions provide a valuable opportunity for participants to deeply reflect on how climate change-related issues can manifest in their professional lives. These sessions create a space for individuals to discuss, analyse, and understand how climate change impacts their work, whether in healthcare, education, public policy, or other fields.

Additional details about the World Café method:

→ <https://theworldcafe.com>

Role of the moderator

The moderator's role is essential in maintaining the structure and flow of the World Café workshop, ensuring that it achieves its objectives and provides a valuable experience for all involved. The moderator's primary role includes:

- setting the workshop's stage;
- guiding participants through the process with particular attention to re-settling and managing timeframes for each round;

→ synthesising the collective insights generated during the sessions.

The moderator explains the World Café methodology, emphasising the essence of adhering to time frames. This introduction is crucial for establishing a comfortable and respectful atmosphere where participants feel encouraged to share their thoughts and experiences openly. The moderator emphasises the importance of active listening, mutual respect, and collaborative inquiry, which are the foundational principles of the World Café process.

During the small-group conversations, the moderator oversees the transitions between discussion rounds, ensuring that participants move smoothly between tables during re-settling. The moderator may provide prompts or questions to stimulate discussion, helping participants delve deeper into the topics at hand.

The moderator also monitors the time, ensuring that each round of conversation stays within the allotted timeframe to maintain the workshop's overall schedule.

At the „harvest“ phase of the workshop, where insights and ideas from the small-group discussions are shared with the larger group, the moderator plays a crucial role. They facilitate this collective reflection by encouraging participants to highlight key points and emerging themes. The moderator synthesises these contributions, helping to distil the collective wisdom and identify actionable insights or common

threads that can inform future actions or decisions.

Expected outcomes of the session

The reflective process of the World Café session, with its structured discussions and sharing of different experiences, is expected to inspire participants to place greater emphasis on the health implications of climate change and its crucial integration into education. Through exchanging insights, participants can gain a broader understanding of real-life examples and cases of climate change's health impacts. Hearing first-hand accounts from their colleagues about how climate change has affected their professional practice allows individuals to establish a more concrete and professional connection to the issue. This connection is not merely theoretical but grounded in actual experiences, making the impact of climate change on health more tangible and immediate. As a result, participants may likely feel a heightened sense of responsibility and urgency, which can significantly enhance their motivation to actively engage with and address climate change-related health concerns in their professional activities.

Incorporating these issues into educational content does more than inform; it transforms the learning experience by connecting theoretical knowledge with real-world applications. Educators who include climate change and its health implications in their teaching not only enrich their content but also empower their students

with a deeper understanding of the interconnectedness between climate change and health. This holistic approach to education fosters a more informed, engaged, and proactive generation of professionals who are better equipped to tackle the myriad challenges posed by climate change in their respective fields.

The World Café small-group conversations and harvest sessions may catalyse professional and personal growth. They enable participants to reflect on their roles in addressing climate change, inspire a sense of responsibility, and provide practical tools and knowledge to incorporate into their work.

Required equipment

Flipchart board, Flipchart sheets, markers, sticky notes

Session 1.5. Closing the workshop on Day 1

Session Goals

This session allows participants to reflect on their individual experiences throughout the workshop, including what they have learned, how they have grown, and any new perspectives gained.

Recommended method(s): guided conversation

The guided conversation consists of two parts. In the first part, the moderator invites the participants to summarise their experiences, feelings and comments and share them within a 90-second time frame. In the second part, the moderator concludes the session by acknowledging the group's efforts and summarizing the key takeaways.

Role of the moderator

The moderator wraps up the session by recognizing the group's efforts and summarizing the key takeaways. They also lead a sharing session where participants can express their reflections, experiences, feelings, and comments about the workshop. This session follows an open-floor format, giving each participant 1.5 minutes to share their thoughts. The moderator's role is to ensure a balanced conversation, allowing everyone to contribute while managing the flow of dialogue to prevent a few voices from dominating and staying within the timeframe.

Additionally, the moderator may outline any follow-up steps, such as an introduction on Day 2, to continue the discussion and strengthen the community formed during the workshop. Finally, the moderator expresses gratitude for the participants' engagement and contributions.

Expected outcomes of the session

The structure of Day 1 is designed to provide participants with the knowledge and emotional connection needed to become more effective advocates for addressing climate change in their spheres of influence, especially in their daily lives. Through structured conversations and group activities, participants may improve their ability to articulate thoughts and listen to others.

The participants are expected to leave the workshop with a more comprehensive understanding of climate change's personal and professional impacts. By connecting personal and professional experiences with climate change, participants may likely feel more motivated to engage in mitigation and adaptation efforts. The collaborative nature of the workshop is expected to help build more robust networks among participants, facilitating future collaboration and support.

Required equipment

No equipment is required.

Session 2.1. Problem-based discussion

Session Goals

The session aims to promote collaboration, engagement, and multi-approach dialogue so that the participants explore connections between their current learning materials and specific health challenges of climate change.

Recommended method(s): Jigsaw method

Description of the Jigsaw method

The Jigsaw method, developed by Elliot Aronson, is a research-based cooperative learning technique. Participants engage in expert discussions, synthesize information, and develop actionable plans through this method. This method improves learning outcomes by encouraging participants to work together towards a common goal. In a Jigsaw classroom, participants are divided into small, diverse groups called „home groups”, each consisting of four to six members. Each home group member is assigned a different segment of the learning material to become an expert on. After receiving their assignments, participants leave their home groups to join „expert groups”, where all members focus on the same segment. Within these expert groups, participants collaborate, share insights, and ensure they thoroughly understand their portion of the material.

Once the participants have mastered their segments, they return to their home groups to teach their peers

what they have learned. This process transforms participants into learners and teachers, fostering a sense of responsibility and accountability. The home group members then synthesize the information their peers provided, enabling a comprehensive understanding of the entire topic.

The Jigsaw method not only enhances comprehension and retention but also builds critical thinking, communication, and interpersonal skills. It encourages active participation, reduces competition, and helps participants develop empathy by valuing each member's contribution. Moreover, the collaborative nature of the Jigsaw method can lead to improved group dynamics and a more inclusive learning environment, making it an effective learning tool across diverse educational settings.

The Jigsaw workflow comprises the following elements:

Expert group discussions – participants from various home groups work with their designated subtopics. They discuss why their particular element is relevant in health and medical education, highlight key points and explore related topics.

Jigsaw rotation – participants return to their home groups

Synthesis and Discussion – each expert presents and shares the newly acquired knowledge on the designated subtopic with home group members.

Incorporation of new insights – an individual work phase where each participant develops a strategy to incorporate newly acquired knowledge into the existing course of which the learning material is taken with the participant to the workshop.

Additional details about the Jigsaw method:

→ <https://www.jigsaw.org/>

Be aware that: Please be aware that the invitation emphasizes that each participant needs to bring a notebook or a laptop and learning materials from a lecture that they will work with during the session.

Role of the moderator

To facilitate a productive and engaging session, the moderator first explains the Jigsaw method. Then, participants are divided into 4- or 5-person home groups, ensuring diverse representation from various medical specialties within each group.

Each group member will then be assigned a specific aspect of the topic discussed. For example, if the topic is the health impacts of heatwaves and the home groups have four members, member #1 could focus on cardiovascular effects, member #2 on respiratory effects, member #3 on mental health impacts, and member #4 on vulnerable populations.

The moderator hands out written materials relevant to each member's assigned topic segment, allowing time

to review and identify key concepts, issues, and challenges. It's crucial that participants only have access to the material associated with their own segment of the discussed topic.

Following the review period, the moderator invites group members from each home group to join expert groups focusing on the same aspect of the discussed topic. These expert groups discuss the main points of their segment and explore how this aspect can be integrated into the learning materials of various medical school courses. Participants may also practice delivering a presentation on their specific aspect within their home group.

Upon completion of the expert group discussions, participants return to their home groups to share insights and findings from their respective expert discussions, thus completing the jigsaw rotation of knowledge.

The moderator then facilitates a synthesis discussion, encouraging participants to reflect on the intersections between the health impacts of the discussed topic and their teaching areas. The moderator needs to prompt participants to explore potential interdisciplinary approaches, teaching strategies, and curriculum enhancements to effectively address the issues associated with the discussed topic.

Finally, the moderator facilitates a session in which participants collaboratively develop action plans or recommendations for integrating the assignment's insights into their teaching

practices and curriculum development efforts.

Expected outcomes of the session

Participants are expected to gain a deeper understanding of the health challenges posed by climate change, such as heat waves, mental health burdens, infectious diseases, and adaptation, mitigation, and prevention strategies. Additionally, educators can take advantage of this opportunity to learn how to effectively incorporate climate change-related health issues into existing curricula. This may promote greater awareness of the health aspects of climate change across various subjects.

Required equipment

No equipment is required.

Be aware that: The present form of this Training Manual includes recommendations for subtopics and materials for problem-based discussions (Session 2.1.1. – Session 2.2.2). The literature and subtopics in the recommendations require periodic updates.

Session 2.2. Challenges and boosters

Session Goals

This session aims to identify barriers and facilitators to the integration of climate change and health issues into current medical school curricula.

Recommended method(s): Causal Loop Diagram method

Description of the Causal Loop Diagram method

Causal Loop Diagrams (CLDs) are vital tools in System Analysis, facilitating the modelling and understanding of complex systems. They enable the mapping of complex problems, illustrating cause-and-effect relationships rather than assuming linear connections between system elements. This allows for a deeper comprehension of behaviours within a system and the development of strategies to manage or counteract these behaviours. CLDs also reveal how problems are interconnected with other systems, enhancing both structural and process understanding. Additionally, CLDs aid in transferring system understanding by providing a language to articulate the dynamic, interconnected nature of the world and creating coherent stories about particular issues through multiple loops.

A CLD comprises three main elements: Variables, Causal Relationships, and Polarity. Variables are the dynamic causes or effects within the system tailored to the research focus. For instance, in a forest ecosystem CLD, soil

could be an element, while the variable might be the change in soil carbon content if that is the research interest. Causal Relationships are depicted as arrows showing directed causes from one variable to another. When multiple causal relationships form a circular structure, they create a loop.

Each causal relationship has either positive or negative polarity, indicating how variables interact. Positive polarity means the variables change in the same direction (both increase or decrease), while negative polarity changes in opposite directions (one increases while the other decreases). These polarities significantly influence the outcomes of systemic processes, especially within loops.

CLDs provide a comprehensive method for analysing and understanding the dynamic interactions and feedback within complex systems, making them indispensable in system analysis and strategy development.

Additional details about the Causal Loop Diagram method:

→ https://sustainabilitymethods.org/index.php/System_Thinking_%26_Causal_Loop_Diagrams

Role of the moderator

As a first step, the moderator must explain the structure of the session:

1. introduction of the CLD method
2. forming groups of participants for group work
3. brainstorming phase for the group members to identify barriers and facilitators to the integration of climate change and health issues into current medical school curricula
4. development of CLD by groups
5. exhibiting the CLD
6. a representative (a speaker) from each group explains the leading points of the CLD to the workshop participants

The moderator must then explain the fundamental structure of a CLD and give a short demonstration of creating one.

Before starting the CLD development, the moderator forms groups from the participants (at least three groups are recommended). Each group develops its own CLD. The CLD needs to focus on the variables and their relations among them, which are potential barriers and facilitators to integrating climate change and health issues into current medical school curricula.

The facilitator hands out flipchart sheets and markers to the groups and schedules time for the brainstorming and CLD development phases. The moderator moves among participants to provide guidance, answer questions, and offer feedback as necessary.

Once the CLDs have been completed, the moderator hangs them up using

Blu Tack and invites the participants to review them. Then, each group speaker explains their CLDs' key points. If necessary, the moderator asks clarifying questions during the speakers' presentations that link or strengthen the speakers' thoughts on the central topic. After the group speakers' presentations, there is a 3-minute timeframe within all the participants can reflect on the presentation.

Expected outcomes of the session

The CLD method can be used to identify various factors that can either hinder or help integrate climate change and health issues into current medical school curricula. Once these factors have been identified, participants can determine the opportunities that can be leveraged to incorporate climate change and health aspects into existing course materials. Furthermore, it will become evident which challenges need to be addressed in order to effectively teach this topic.

Required equipment

Flipchart sheets, markers, Blu Tack reusable adhesives

Session 2.3. Wrap-up

Session Goals

This session aims to encourage participants to reflect on their thoughts, feelings, and reactions to the workshop, thus promoting self-awareness and self-reflection. It also helps them relate the workshop content to their experiences, beliefs, and perspectives, making it more relevant and meaningful.

Recommended method(s): Exit Ticket method

Description of the Exit Ticket method

The Exit Ticket method is an effective educational assessment strategy that involves students providing brief feedback after a lesson. When used in a workshop context, this method can effectively summarize the understanding of the participants.

This method is straightforward: the moderator requests that participants write down

- one thing they learned,
- one question they still have, and
- one action they plan to take as a result of the workshop.

The answers provide immediate insights into participants' experiences, feedback for the organizers on the areas in which there are opportunities for developing training content or methods, and information on how inspiring the workshop has been.

Additional details about the Exit Ticket method:

→ <https://www.theteachertoolkit.com/index.php/tool/exit-ticket>

Role of the moderator

In the closing session of the workshop, the moderator asks participants to write down

- one thing they learned,
- one question they still have, and
- one action they plan to take as a result of the workshop.

The moderator may distribute pieces of paper for participants to use for the exit tickets.

This method provides a quick and concise way for participants to reflect on their learning. The moderator may offer the opportunity that those who desire to do so have the chance to share exit tickets in the closing round.

The moderator wraps up the session and the entire workshop with a closing round. In the framework of the closing round participants can express their reflections, experiences, feelings, and comments about the entire workshop or some parts of it. This session follows an open-floor format, giving each participant 3 minutes to share their thoughts. The moderator's role is to ensure a balanced conversation, allowing everyone to contribute while managing the flow of dialogue to prevent a few

voices from dominating and staying within the timeframe.

Expected outcomes of the session

This training day is expected to equip participants with both the knowledge and the practical tools needed to effectively integrate climate change-related health issues into medical education, fostering a proactive and informed approach to one of the most pressing challenges of our time. They are also expected to gain practical skills for incorporating climate change topics into their teaching, supported by action plans developed during the sessions. Finally, it is also expected that the workshop could strengthen professional networks and collaborative skills to aid their future efforts to integrate climate change education across medical curricula.

Required equipment

Pieces of paper and pens