EACH: International Association for Communication in Healthcare statement on climate change, health and vulnerability: enhancing resilience through social and behavior change communication

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KEYWORDS Climate change; public health; healthcare; communication

JOURNAL OF COMMUNICATION IN HEALTHCARE

https://doi.org/10.1080/17538068.2024.2357947

Climate change poses a multifaceted threat to human health, exacerbating existing vulnerabilities and creating new challenges worldwide [1]. From extreme weather events to shifting disease patterns, the impacts of climate change are deeply intertwined with public health [2]. Vulnerable populations, including low-income communities, marginalized groups, and regions with limited resources, bear the brunt of these consequences. Amidst this complexity, social and behavior change communication emerges as a crucial tool for addressing the intersecting issues of climate change, health and vulnerability [3-5]. EACH: International Association for Communication in Healthcare is a not-for-profit charitable organization that provides opportunities for international network- ing and sharing of expertise in healthcare communication teaching, research, policy and practice. EACH is a global community of practice with a mission to support the development of effective patient-centered communication in countries across the world. EACH recognizes that climate change is a real threat to people around the world and particularly the most vulnerable members of our communities and is committed to implementing practices to minimize the environmental impact of its activities. In this essay, EACH explores the significance of social and behavior change communication in enhancing resilience and mitigating the adverse health effects of climate change, with a focus on its role in fostering adaptive behaviors, building community resilience and promoting sustainable policies.

### Understanding climate change, health, and vulnerability

Climate change manifests through various mechanisms, including rising temperatures, altered precipitation patterns and increased frequency of extreme weather events such as hurricanes, floods and droughts. These changes disrupt ecosystems, alter vector-borne disease transmission patterns, compromise food and water security and exacerbate air pollution, among other consequences. The resulting health impacts range from heat-related illnesses and respiratory problems to malnutrition and infectious diseases [6].

Vulnerable populations, including children, the elderly, people with pre-existing health conditions and those living in poverty or marginalized communities, face disproportionate risks. Socioeconomic factors such as limited access to healthcare, inadequate infrastructure and social inequalities exacerbate their vulnerability. For

instance, communities in low-lying coastal areas are more susceptible to flooding and storm surges, while urban populations experience the urban heat island effect, amplifying heat-related health risks.

### The role of social and behavior change communication

Social and behavior change communication plays a pivotal role in addressing the interconnected challenges of climate change, health and vulnerability by facilitating the adoption of adaptive behaviors, fostering community resilience and influencing policy decisions.

Social and behavior change communication (SBCC):

'is premised on the assumption that individual behaviors need to be understood and tackled within an ecological framework, from interpersonal relations to the policies, cultural norms, and values that shape the world in which individuals live. SBCC plays an important role in introducing and maintaining desired health behaviors and norms.' [7]

### What is social and behavior change communication?

Social and behavior change communication uses communication strategies that are based on behavior and social science to positively influence knowledge, attitudes and social norms among individuals, institutions and communities [8].

The foundation of social and behavior change communication focuses on a collection of approaches and tools informed by behavioral and social theories to construct a basis for designing public health interventions. It is a widely recognized approach utilized within a variety of challenging areas addressing key global health challenges (e.g. public health, education, sanitation).

The overall aims are to:

- Encourage change in people's understanding of health-related issues, social attitudes and behaviors.
- Use interventions to bring about desired behavior change and enable improved health outcomes [8].

Within this multi-layered approach it is important to recognize key points relating to:

Intended audiences.

- Engagement of local communities and stakeholders.
- Implementation of tailored approaches.
- Dissemination of information through appropriate communication channels.

Channels of communication can vary and incorporate:.

- Interpersonal communication.
- Use of media platforms (e.g. radio broadcasting, social media, traditional media, messaging).
- Community/social mobilization [9].

Rapidly evolving technology has increased the reach of social and behavior change communication to more remote populations, and this wide dissemination enables change in knowledge and attitudes on a larger scale [10]. Research has identified that it is imperative that health professionals who are involved in designing and/or implementing communication interventions have the relevant expertise, allowing them to effectively design, deliver, implement and evaluate the intervention.

## Fostering adaptive behaviors

In the instance of climate change-related efforts, social and behavior change communication interventions leverage communication strategies to promote individual and community-level actions that mitigate climate-related health risks. For example, this may include raising awareness about heatwave preparedness measures, such as staying hydrated, seeking shade and avoiding strenuous outdoor activities during peak temperatures, as well as promoting the adoption and sustainability of such behaviors. Similarly, social and behavior change communication campaigns can encourage the use of mosquito repellents and bed nets to prevent vector-borne diseases in regions experiencing shifts in disease transmission patterns due to climate change [11,12].

Moreover, social and behavior change communication empowers communities to adopt sustainable practices that reduce their carbon footprint and contribute to climate resilience. For instance, promoting energy-efficient technologies, such as solar panels and efficient cooking stoves, not only mitigates green-house gas emissions but also improves indoor air quality and reduces respiratory illnesses [13–15].

# **Building community resilience**

Social and behavior change communication interventions can foster community engagement and participatory approaches to resilience-building whilst acknowledging the unique needs and strengths of diverse populations [16]. By facilitating dialogue and knowledge-sharing, communication initiatives can empower communities to identify local vulnerabilities, develop adaptive strategies and mobilize resources effectively [17].

Community-based strategies, such as early warning systems for extreme weather events and community gardens for food security, are often informed by social and behavior change communication efforts that prioritize local knowledge and cultural context, and focus on addressing social, political, and structural barriers to behavior change. This contextual approach is critical in supporting communities already challenged by health inequities due to social determinants of health [18]. These initiatives not only enhance resilience to climate-related health threats but also promote social cohesion and collective action.

# Influencing policy and institutional change

Social and behavior change communication serves as a catalyst for policy advocacy and institutional change, driving the adoption of evidence-based interventions and sustainable policies at local, national, and global levels [19]. By mobilizing stakeholders, generating evidence and amplifying voices from affected communities, communication campaigns can influence decision-makers to prioritize climate-resilient health systems, invest in infrastructure improvements and integrate climate change adaptation into public health policies [20].

Furthermore, social and behavior change communication contributes to mainstreaming climate change considerations across sectors, fostering interdisciplinary collaboration and holistic approaches to addressing complex challenges. By highlighting the interconnections between climate, health and social justice, communication interventions promote equity-oriented policies that prioritize the needs of vulnerable populations.

## Case studies and best practices

Numerous case studies have demonstrated the effectiveness of social and behavior change communication in addressing climate-related health challenges and enhancing resilience in diverse contexts [21].

For example, the 'Healthy Islands' campaign in the Pacific region employs social and behavior change communication to address the health impacts of climate change, including vector-borne diseases, water scarcity and food insecurity [22]. By engaging local leaders, leveraging traditional communication channels and integrating cultural values into health promotion activities, the campaign has strengthened community resilience and fostered sustainable behavior change across multiple islands [23,24].

#### A call to action from EACH

Despite its potential, social and behavior change communication faces several challenges in addressing the nexus of climate change, health and vulnerability. Limited funding, competing priorities and inadequate infrastructure pose barriers to implementing comprehensive communication initiatives, particularly in resource-constrained settings. Moreover, addressing cultural and linguistic diversity requires tailoring communication strategies to diverse audiences, which may necessitate additional resources and expertise. Also, there are challenges in evaluating complex interventions in terms of direct and indirect impacts [7].

Looking ahead, there is a need for greater collaboration among stakeholders, including governments, civil society organizations, academia and the private sector, to scale up social and behavior change communication efforts and embed climate-resilient health policies into mainstream practice. Investing in research and innovation, harnessing digital technologies and strengthening community-led approaches can enhance the effectiveness and sustainability of communication interventions in tackling climate-related health challenges.

In summary, EACH believes that the intersecting issues of climate change, health and vulnerability demand holistic and interdisciplinary approaches that prioritize community engagement, behavior change and policy advocacy. Social and behavior change communication emerges as a vital tool for promoting resilience, empowering communities and catalyzing transformative change in the face of climate-related health threats. By fostering adaptive behaviors, building community resilience and

influencing policy decisions, communication interventions can contribute to creating healthier, more sustainable and equitable societies in a changing climate. As we navigate the complexities of the climate crisis, social and behavior change communication offers a pathway toward a more resilient and thriving future for all.

#### **Disclosure statement**

No potential conflict of interest was reported by the author(s).

### **About EACH**

EACH: International Association for Communication in Healthcare is a global organization dedicated to exploring and improving healthcare communication. EACH aims to improve healthcare by promoting effective, evidence-based, patient-centred healthcare communication between patients, those close to them and healthcare practitioners, throughout the world. EACH members have a variety of expertise and are active in healthcare communication research, teaching, policy-making and practice.

EACH is a Charitable Incorporated Organisation registered with the Charity Commission for England and Wales. For additional information on EACH membership and programmes, visit https://each.international/.

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#### References

- [1] Haines A, Kovats RS, Campbell-Lendrum D, Corvalán C. Climate change and human health: impacts, vulnerability, and mitigation. Lancet. 2014;383(9926):112–23.
- [2] Smith KR, Bruce N, Balakrishnan K, Adair-Rohani H, Balmes J, Chafe Z, et al. Millions dead: how do we know and what does it mean? Methods used in the comparative risk assessment of household air pollution. Annu Rev Public Health. 2014;35:185–206.
- [3] Maibach EW, Roser-Renouf C, Leiserowitz A. Communication and marketing as climate change—intervention assets: a public health perspective. Am J Prev Med. 2008 Dec 1;35(5):488–500.
- [4] Myers TA, Nisbet MC, Maibach EW, Leiserowitz AA. A public health frame arouses hopeful emotions about climate change. Climate Change. 2012 Dec 1;113(3–4):1105–12.
- [5] Briscoe C, Aboud F. Behaviour change communication targeting four health behaviours in developing countries: a review of change techniques. Soc Sci Med. 2012;75(4):612–21. doi:10.1016/j.socscimed.2012. 03.016.
- [6] Adger WN, Hughes TP, Folke C, Carpenter SR, Rockstrom J. Social-ecological resilience to coastal disasters. Science. 2005;309(5737):1036–9.
- [7] Handebo S, Sharma R, Simireta T, Addissie H, Endalew GB, Girma E, et al. Social and behavior change communication competency among front-line healthcare system actors in Ethiopia: a cross-sectional study. BMC Public Health. 2024;24(1):663. doi:10.1186/s12889-024-18084-x.
- [8] Centre for Social and Behaviour Change Communication. [cited 28<sup>th</sup> March 2024]. Available from: https://www.centreforsbcc.org/what-is-sbcc/.

- [9] Evidence of effective approaches to social and behaviour change communication for preventing and reducing stunting anemia. Findings from a systematic literature review by USAIDS. [cited 25th March 2024]. Available from: https://spring-nutrition.org/sites/default/files/ publications/series/spring\_sbcc\_lit\_review.pdf.
- [10] Dearden K, Mulokozi G, Linehan M, Cherian D, Torres S, West J, et al. The impact of a large-scale social and behavior change communication intervention in the lake zone region of Tanzania on knowledge, attitudes, and practices related to stunting prevention. Int J Environ Res Public Health. 2023;20:1214. doi:10.3390/ijerph20021214.
- [11] Potter A, Jardine A, Morrissey A, Lindsay MDA. Evaluation of a health communication campaign to improve mosquito awareness and prevention practices in Western Australia. Front Public Health. 2019 Mar 19;7:54. doi:10.3389/fpubh.2019.00054. PMID: 30941341; PMCID: PMC6433780.
- [12] Banneheke H, Paranavitane S, Jayasuriya V, Banneheka S. Perceived risk of dengue in ones' living environment as a determinant of behavior change through social mobilization and communication: evidence from a high risk area in Sri Lanka. J Arthropod Borne Dis. 2016 Jan 6;10(3):392–402. PMID: 27308297; PMCID: PMC4906745.
- [13] Evans WD, Johnson M, Jagoe K, Charron D, Young BN, Rahman ASMM, et al. Evaluation of behavior change communication campaigns to promote modern cookstove purchase and use in lower middle income countries. Int J Environ Res Public Health. 2018;15 (1):11. doi:10.3390/ijerph15010011.
- [14] Lambe F, Johnson O, Ochieng C, Diaz L, Lee K. What's health got to do with it? Influencing cookstove uptake in Cambodia through behaviour change communication. J Soc Mark. 2019;9:94–110. doi:10.1108/ JSOCM-03-2018-0027.
- [15] Lindgren S. Clean cooking for all? A critical review of behavior, stakeholder engagement, and adoption for the global diffusion of improved cookstoves. Energy Res Social Sci. 2020;68:Article 101539. doi:10.1016/j. erss.2020.101539.
- [16] Raducu R, Soare C, Chichirez CM, Purcarea MR. Climate change and social campaigns. J Med Life. 2020 Oct– Dec;13(4):454–7. doi:10.25122/jml-2020-0173. PMID: 33456591; PMCID: PMC7803319.
- [17] Neuhauser L, Kreps GL. eHealth communication and behavior change: promise and performance. Soc Semiot. 2010;20(1):9–27. doi:10.1080/10350330903438386.

- [18] WHO. Social determinants of health. 2024. [cited 9<sup>th</sup> May 2024]. Available from: https://www.who.int/health- topics/social-determinants-of-health#tab = tab\_1.
- [19] van Nee RL, van Kleef E, van Trijp HCM. Dutch preadoles- cents' food consumption at school: influence of auton- omy, competence and parenting practices. Nutrients. 2021 Apr 29;13(5):1505. doi:10.3390/nu13051505.
- [20] Roser-Renouf C, Maibach EW. Communicating climate change. In: Priest SH, editor. Encyclopedia of science and technology communication. Thousand Oaks, CA: Sage Publications; 2010. p. 142–7. doi:10.4135/9781412959216.
- [21] Bose DL, Hundal A, Singh S, Singh S, Seth K, Hadi SU, et al. Evidence and gap map report: social and behavior change communication (SBCC) interventions for strengthening HIV prevention and research among adolescent girls and young women (AGYW) in low- and middle-income countries (LMICs). Campbell Syst Rev. 2023 Jan 10;19(1):e1297. doi:10.1002/cl2.1297. Erratum in: Campbell Syst Rev. 2023 Feb 12;19(1):e1310.
- [22] Martin E, Snowdon W, Moadsiri A, Volavola S, Bell C. Pacific healthy islands vision: success factors and chal- lenges faced by health promotion programs. Health Promot Int. 2023 Jun 1;38(3):daac002. doi:10. 1093/heapro/daac002. PMID: 35700446; PMCID: PMC10269115.
- [23] WHO. Healthy islands: best practices in health pro- motion in the Pacific. 2024 [cited 28<sup>th</sup> March 2024]. Available from: https://www.who.int/publications/i/item/9789290618270.
- [24] The Pacific Community Sustainable Pacific Development Through Science, Knowledge and Innovation. Pacific Community 2024. Available from: https://www.spc.int/.