



Science and Evaluation in Disasters

WADEM endorses the need to improve the evidence-base of disaster health interventions; improve the quality and accountability of preparedness, response and recovery in this domain; and systematically structure and advance the science of disaster health. Evaluation has a strategic role to play in informing interventions designed to reduce the impact of disasters upon individuals and communities. The aim of such evaluation is to improve science related to the understanding of impacts of disasters and ensure relevance, efficiency, and effectiveness of interventions.

Evidence-based evaluation typologies, frameworks, and methodologies are required to guide users on the application of tools that effectively measure the impact of an intervention and allow for comparison of outcomes to inform current and future practitioners and enhance policymaking. This important development is aimed at facilitating the availability of evidence relevant to disaster evaluation standards and guide robust technical evaluation capacity development. Achievement of this will provide evidence as the basis for change in policies, programs, or projects. As a result, WADEM:

- Recognizes the need to improve the quality, quantity, and accessibility of evaluation, as well as specific assessment tools in this domain.
- Strives to standardize the evaluation methodologies in the field of emergency and disaster medicine and management.
- Supports the use of evaluation in disasters in achieving indicators related to *The Sendai Framework for Disaster Risk Reduction 2015-2030*.¹
- Urges education of disaster evaluation methodology and typologies.
- Recommends engaging the advice or involvement of professionals with evaluation expertise to improve understanding of evaluation in all stages of disaster prevention, planning, response, and recovery.
- Endorses 'Health Disaster Management: Guidelines for Evaluation and Research in the Utstein Style' and subsequent frameworks.^{2, 3, 4, 5}

- Endorses ‘Disaster Metrics: A Comprehensive Framework for Disaster Evaluation Typologies’⁶
- Endorses the development and use of standardized tools for the evaluation of disasters.

The relevance to the WADEM mission is that, through evaluating and understanding the impacts of disasters, communities can prevent, prepare, respond and recover more effectively.

References:

1. Assembly, U.G., 2015. The Sendai Framework for Disaster Risk Reduction 2015–2030. Resolution A/Res/69/283, see <https://www.unisdr.org/files/resolutions/N1516716.pdf>.
2. Sundnes, K. (1999). Health Disaster Management: Guidelines for Evaluation and Research in the Utstein Style: Executive Summary. *Prehospital and Disaster Medicine*, 14(2), 11-20. doi:[10.1017/S1049023X0002728X](https://doi.org/10.1017/S1049023X0002728X).
3. Birnbaum, M., Daily, E., & O’Rourke, A. (2015). Research and Evaluations of the Health Aspects of Disasters, Part III: Framework for the Temporal Phases of Disasters. *Prehospital and Disaster Medicine*, 30(6), 628-632. doi:[10.1017/S1049023X15005336](https://doi.org/10.1017/S1049023X15005336).
4. Birnbaum, M., Daily, E., & O’Rourke, A. (2015). Research and Evaluations of the Health Aspects of Disasters, Part IV: Framework for Societal Structures: The Societal Systems. *Prehospital and Disaster Medicine*, 30(6), 633-647. doi:[10.1017/S1049023X15005348](https://doi.org/10.1017/S1049023X15005348).
5. Birnbaum, M., Daily, E., & O’Rourke, A. (2015). Research and Evaluations of the Health Aspects of Disasters, Part V: Epidemiological Disaster Research. *Prehospital and Disaster Medicine*, 30(6), 648-656. doi:[10.1017/S1049023X1500535X](https://doi.org/10.1017/S1049023X1500535X).
6. Wong, D., Spencer, C., Boyd, L., Burkle, F., & Archer, F. (2017). Disaster Metrics: A Comprehensive Framework for Disaster Evaluation Typologies. *Prehospital and Disaster Medicine*, 32(5), 501-514. doi:[10.1017/S1049023X17006471](https://doi.org/10.1017/S1049023X17006471).