

in order to continue patient care throughout the hospital. Reverse Osmosis machines were procured with production capacity up to 1892 L/minute. In addition to tap water filtration, the RO systems are capable of filtering non-potable water supplies including 750,000 gallons (2.84 million L) on-site and an addition 1.5 million gallons (5.69 million L) stored at an off-site location. Finally, an outside vendor was hired to monitor water quality in the hospital and alert hospital administrators once municipal water became substandard. Special considerations were made for services highly reliant on water, including dialysis, dental, laboratory services, sterile processing, pharmacy, and surgery. To continue dialysis services, UMC planned to share capacity with a private service provider (Davita, Inc.) including CRRT machines and storage space for dialysate fluid. The dental team utilized their own water filtration system. A vendor was hired to distribute bottled water as needed. Ultimately, high salinity water never reached the pipes of New Orleans as a result of increased river flow and construction of a sill. However, this overall process serves as a blueprint for rapid expansion of water contingency planning for a major urban hospital.

Prehosp. Disaster Med. 2026;41(Suppl. S1):s39–s40

doi:10.1017/S1049023X26102556

The Impacts of Extreme Weather Events on Health Systems: An Overview of Reviews

Martina Valente^{1,2}, Clara Del Prete^{1,2}, Giulia Facci^{3,4}, Sara Calligaro⁵, Luca Ragazzoni^{3,2}, Francesco Barone Adesi^{3,4}

1. CRIMEDIM, Center for Research and Training in Disaster Medicine, Humanitarian Aid and Global Health, Università del Piemonte Orientale, Italy
2. Department for Sustainable Development and Ecological Transition, Università del Piemonte Orientale, Italy
3. CRIMEDIM, Center for Research and Training in Disaster Medicine, Humanitarian Aid and Global Health, Università del Piemonte Orientale, Italy
4. Department of Translational Medicine, Università del Piemonte Orientale, Italy
5. Department of Emergency, Anesthesiology and Intensive Care, Umberto Parini Hospital, Italy

Introduction: Extreme weather events (EWEs) have devastating impacts on populations, ecosystems, and critical infrastructure. While their effects on health have been extensively studied, their impacts on the health system are less understood. This study aims to investigate the impacts of heatwaves, cold spells, floods, landslides, and wildfires on the health system, focusing on changes in system performance, alterations in patient flows, and disruptions to infrastructure.

Methods: A systematic review of reviews was conducted using PubMed, Scopus, and Web of Science databases. The search string was developed by combining keywords with Boolean operators. Eligible studies include narrative and systematic reviews (with or without meta-analysis) that address the impacts of selected EWEs on the health system. Only studies published in the last 10 years with full texts available online were included.

Results: Of 2108 retrieved reviews, 668 duplicates were removed, 1286 were excluded after title and abstract screening,

and 40 were excluded after full-text assessment, resulting in 114 included reviews. The impacts were categorized by type of event and by the affected health system component—e.g., pre-hospital, hospital (emergency pathway, medical and surgical pathway, outpatient pathway, and day hospital), primary care and elderly care, pharmacies, and public health. The impacts concern infrastructure and equipment, care accessibility, quality, service utilization, surge capacity, and resource availability.

Conclusion: The results of this study provide insights into the expected impacts of EWEs on the health system and suggest actions to enhance preparedness.

Full authorship: Valente Martina, Del Prete Clara, Facci Giulia, Cenati Stefano, Musso Francesco, Calligaro Sara, Ragazzoni Luca, Francesco Barone-Adesi

This study is conducted within the Horizon Europe project MOUNTADAPT, co-funded by the EU. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the EU or CINEA. Neither the EU nor the granting authority can be held responsible for them.

Prehosp. Disaster Med. 2026;41(Suppl. S1):s40

doi:10.1017/S1049023X26102556

Questionnaire Survey of Dialysis Patients and Medical Professionals Regarding Information Sharing During Disasters

Masaharu Nakayama MD, PhD¹, Keisuke Ido MPH², Tadashi Ishii MD, PhD², Mariko Miyazaki MD, PhD¹

1. Tohoku University Graduate School of Medicine, Japan
2. Tohoku University Hospital, Japan

Introduction: Hemodialysis (HD), an essential treatment for patients with end-stage renal disease, is vulnerable to disasters because it is highly dependent on infrastructure such as water and electricity. During disasters, HD patients occasionally have to be transferred to other facilities where HD is available. In such cases, sharing patient information is critical for medical safety. This study aims to explore the types of information that should be shared among facilities and to investigate common and desired methods for sharing it.

Methods: A questionnaire survey was conducted among medical staff and HD patients at dialysis facilities in Miyagi Prefecture, which was greatly affected by the Great East Japan Earthquake, and subsequently developed a regional clinical information system. Between January and February 2024, questionnaires were sent to all 71 dialysis facilities in Miyagi, with responses collected either in written form or online.

Results: A total of 383 responses from medical staff and 538 from HD patients were analyzed. Patient information is shared in hospitals using electronic and paper medical records, patient cards, dialysis records, data from dialysis machines, and regional collaboration systems. The rate of sharing this information with patients was 45%. Medical professionals prioritized HD-specific information, as well as critical details such as infectious diseases, contraindications, and allergies. Among HD patients, the most common methods for managing their information were medication notebooks, dialysis patient cards, and personal dialysis records. When transferring to other facilities, patients expressed concerns about the accuracy of HD-specific