

Disaster Medicine Pocket Guide: 50 Essential Questions: Work of the French Society of Disaster Medicine

Disasters are serious disruptions of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to loss and impact. Disasters affect millions of people and cause billions of dollars in damage globally each year.

To help understand and manage disasters, practitioners, academics and government agencies frame disasters in phases. [Click To Tweet](#)

The phases of disaster include:

Mitigation: The National Disaster Recovery Framework describes mitigation as the “capabilities necessary to reduce loss of life and property by lessening the impact of disasters.” Examples include hazard-resistant construction and improved environmental and social policies and public awareness. In climate change policy, the term mitigation is defined differently and is used for the reduction of greenhouse gas emissions that are the source of climate change.

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Preparedness: According to the United Nations Office for Disaster Risk Reduction (UNDRR), preparedness is “the knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.” In practice, preparedness can include early warning systems, contingency planning, stockpiling of equipment and supplies, and creating coordination mechanisms.

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Recovery: The Center for Disaster Philanthropy defines recovery as the process of improving individual, family and community resiliency after a disaster. Recovery is not only about the restoration of structures, systems and services. A successful recovery is also about addressing sources of inequitable and unjust outcomes, and individuals and families being able to rebound from their losses and sustain their physical, social, economic, mental, emotional and spiritual well-being. This phase also seeks alignment with the principles of sustainable development and removing needs by reducing risks and vulnerability.

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The disaster phases have traditionally been visualized in what is referred to as the "disaster cycle" or "disaster management cycle." As the name suggests, the "cycle" refers to a cyclical process that includes a disaster event which is then followed by response, recovery, mitigation and finally, preparation activities prior to the next disaster.

The disaster cycle has been criticized for framing disasters in an overly simplistic way that starts with a disaster and ends with another one. According to Sawalha, "In response to the increasing impacts and frequency of disasters and in view of the above complexities in dealing with major incidents, the traditional disaster management cycle has to be revisited and revised."

Disasters are complex and non-linear and are almost always the result of human actions and decisions. While hazards are natural, disasters are not. Click To Tweet Disasters occur when a natural hazard, such as an earthquake, interacts with human society, particularly vulnerable groups. This concept is visualized in what is known as the pressure and release model. Therefore, humans also possess the ability to alter disaster events.

Lee Boshier and colleagues argue that "the problem with the disaster cycle from a holistic DRM [disaster risk management] perspective is that the disastrous "event" is ever present as it starts/ends the cycle of phases. Ideally, effective DRM (where risk reduction measures are suitably taken on board) would result in the elimination of

a disaster “event” as it would address not only the physical manifestation of a disaster “event” but its systemic root causes.

Several researchers and practitioners have observed that rather than siloed or cyclical, the disaster phases are interconnected and overlap with and influence one another. Such thinking is seen in the Recovery Continuum as described in the second edition of the National Disaster Recovery Framework (NDRF). According to the NDRF, “The Recovery Continuum highlights the reality that, for a community faced with significant and widespread disaster impacts, preparedness, response, and recovery are not and cannot be separate and sequential efforts.”

Although use of the traditional disaster cycle persists, discussions are ongoing and new models are emerging that aim to reimagine the cycle in a way that considers the phases of disaster as dynamic and interconnected processes. One such example is the helix diagram from Lee Boshier and colleagues which “provides a new way in which DRM can be understood. Instead of linear stop-start activities, the DRM helix suggests that the actions of DRM must be understood in complex linked systems.”

The version of their diagram shown below represents a “realistic and effective DRM case scenario” where the disaster does not have a major impact, leading to small response and recovery activities while also initiating risk reduction activities that may lead to a future of no additional disasters.

Reference

[Exercise and Sport Pharmacology](#)

[Corpulence And Its Treatment On Physiological Principles](#)