

ARE RADIATION EMERGENCIES LIKE OTHER EMERGENCIES?

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The nuclear reactor explosion at Chernobyl sent waves of anxiety and concern throughout industrialized countries on an unparalleled scale. Does this public response reflect fundamental differences between emergencies related to nuclear energy and those resulting from other types of disasters? Are radiation emergencies like other emergencies? This paper compares technological emergencies, such as that at Chernobyl, to natural disasters, such as earthquakes and mudslides caused by volcanic eruption.

DEFINING AND CLASSIFYING DISASTERS

Attempting to define a disaster precisely invites disagreement among scientists, relief officials, and other experts. A working definition that has been adopted by the Pan American Health Organization (PAHO) is: a life-threatening ecological disruption occurring on a scale sufficient to exceed capacity of the affected community to respond.

In recent years, the extent of mass media coverage appears to be a key determining factor in the definition of a disaster: An emergency that makes the front page of newspapers or appears on prime-time television seems to be a disaster. This publicity influences the extent of official and public response and the level of resources mobilized.

Disasters are classified according to suddenness of onset and causal factors. Sudden-onset disasters would include earthquakes, hurricanes, and explosions; drought and famine would be examples of slow-onset disasters. Causal factors may be natural and involve climatic, seismologic, or volcanic hazards, or they may be technological--illustrating hidden costs of industrialization and development--for instance, radiation or chemical releases, explosions, and modes of transportation. Conflicts and civil disturbances also lead to disasters of various kinds. In this paper, discussion is limited to sudden natural or technological disasters.

EMERGENCY PREPAREDNESS AND CONTINGENCY PLANNING

As in medicine, the best cure for disasters is prevention. Because prevention falls outside the direct responsibility of the health sector and, in the case of natural disasters, often outside the reach of society, it will not be discussed extensively. Preparedness, however, is within reach. Accepting the inevitability of catastrophic events in the foreseeable future, we should institute measures to help organize an effective and rapid response to disasters, and thus minimize public health consequences.

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