

Under U.S. Public Health Service grant CH 00191 (September 1, 1965 to August 31, 1968) awarded to the Texas Hospital Association, the Health Resources Planning Unit was established to develop methods for reviewing, testing, and inspecting disaster medical care plans with the objective of maximizing the effort to close the gap between needed and available medical resources for disaster survival.

The actual effects of a disaster are dependent upon the type of disaster event and the extent of community is dependent upon the survival of its population and its natural tendencies to reorganize and repair itself. Disaster medical and health services are directed toward assuring the survival of the community.

Successful reaction to a disaster depends upon preparedness, which is reflected in planning management organization and public education. Planning for increasing the survival potential of the population is primarily concerned with the allocation of medical care resources to achieve the maximum medical care for medical care for the maximum number of casualties. In such a plan needs for medical care facilities must be established, the facility-disaster interface role determined, an optimum allocation of medical supplies developed, personnel assignments made, and the control of casualty movement planned. Above all, a management organization with specific responsibilities and training is needed.

One of the major efforts of this project has been the development of a computer model to simulate disaster environments in order to study the variable situations associated with disaster medical care problems and community preplanning required.

As a part of the project, Lockheed Missiles and Space Company, Sunnyvale, California, was contracted to develop a disaster environmental simulator and the necessary supporting documentation. Required input data for the simulation were furnished by the project staff of the Health Resources Planning Unit with assistance from consultants in operations research, statistics, medical specialties, and other disciplines. Under this contract a workable and very flexible simulator program was completed in September of 1967.

The disaster Environmental Simulator (DES) uses the State of Texas Operational Survival Plan and its supporting medical Annex "0", "Disaster Health and Medical Services," as its basic guidelines document. However, simulation exercises can be readily adapted to other state and local plans by administrative techniques without requiring change to the program itself.

The Disaster Environmental Simulator was designed as an instrument to measure and improve the effectiveness of area-wide planning for disaster. It can also be used to study the resources distribution in a potential disaster locality against the environment of different even the need for new and different resources.

The Disaster Environmental Simulator is designed also to be used for training disaster management teams through repeated simulation exercises, where teams try different recovery strategies and observe the resulting effects in terms of dead, recovered, and still injured playing mode, the disaster management teams will have an opportunity to gain experience in the management of disaster recovery without the cost of actual disaster.