

infrastructure that is able to remain operative during all phases of a disaster and its response, thus addressing an important vulnerability of the existing infrastructure-oriented approach to telecommunications. We see applications that include supporting communities in maintaining communication in order that medical and public health effects of emergencies can be responded to more effectively and potentially providing ready access to communications for distributed teams of emergency health and humanitarian workers in disasters. Our goal in creating this technology and removing all barriers to adoption is to facilitate its ubiquitous inclusion in new mobile telephones, so that we can leverage the mass production of consumer electronics to create a resilient telecommunications capacity that can be deployed anywhere without supporting infrastructure. This would enable the creation of, for example, networks consisting solely of used telephones.

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(A337) State Failure as a Factor in International Global Medical Operations: Network Modeling

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Introduction: In order to counteract disasters and emergencies, it is necessary to build cooperation and collaboration among all entities and actors. Field teams of rescuers require support from the State experiencing a disaster. The responses to the earthquake in Haiti demonstrated a lack of cooperation and collaboration and the rescuers encountered concomitant difficulties. Thus, the problems in the field are not only related to natural and technological aspects, but also social and political contexts. It is time to explore the role of the impact of State power on national and international disasters and emergencies. One modern and fruitful instrument for analysis of these complicated social and group processes is Complex Network modeling. Complex Network tools have been applied successfully to understanding and counteracting such threats as they relate to the spread of infectious diseases and/or to terrorist activities. Another significant utilization of the Complex Network approach is to develop good governance, management, and organizational processes in national and corporate landscapes. **Methods:** Based on a Complex Network Scope, a novel, three-layer network model of public connections for diverse State regimes for further simulation is proposed. Quantitative assessments and practical processes should be implemented for countering global disasters using international and interdisciplinary teams. Contrary to the known hierarchical layer approach for knowledge acquisition, this new model describes an overall national Society Network by dividing the approach into the three layers: (1) Formal (State), as hierarchical governments structures; (2) Informal (presented by different long-term sustainable link groups); and (3) Informal (aquainters with short term links (“weak ties”).

Results: According to each of these layers, one of three types of network topologies exist: (1) hierarchical; (2) scale-free; and (3) random, respectively.

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(A338) Time for Order In Chaos! A New Model to Capture the Role of Foreign Field Hospitals after Disasters

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There is a paucity of reliable data on the healthcare needs over time after sudden onset disasters (SOD). There also are no widely acknowledged definitions and data on deployment, use, staffing, and management of foreign field hospitals (FFH) after such disasters. Further, the efficiency, relevance, timing and cost-effectiveness of FFHs in the aftermath of SODs have been questioned. This was again highlighted after the 2010 Haiti earthquake, when the situation, to a large extent, was chaotic, uncoordinated, and care was not adapted to needs. These shortcomings create severe difficulties with respect to studying the real impact of medical aid after a SOD and optimizing the international medical relief efforts to be applied afterward. This article aims to present a health system approach to the deployment of FFHs after a SOD, here applied to an earthquake. By reviewing the literature and drawing on field experiences from SODs, a conceptual framework was developed that capture the essential dimensions in such a model, including: (1) classification standardization of levels of care in FFH (1–4); (2) time-phases after the event (1–5); and (3) the need for health care based on the assumed burden of disease and, hence, need for medical care in relation to the socio-economic context. The model currently is being tested on a number of international experts in the field. By using this framework, the authors hope to create: (1) a common platform for research within this area; and (2) a tool for international actors that will facilitate a development toward an international coordination body in the future. As such, the framework hopefully will offer an opening to a structural approach to the above mentioned difficulties, support international actors in their SOD preparations and deployments, and put them in a better position to optimize the resources available to the targeted population.

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(A340) The Role of Field Hospitals in Severe Environments — Guidelines to Prepare and Build a Field Hospital during a Disaster

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Introduction: Facing the threats of disasters due to natural hazards and terrorist attacks, communities and nations are strategically preparing to respond rapidly to such incidents with the appropriate medical services. Both natural and complex disasters may produce a massive number of casualties that outstrip