Abstract
This research proposes a comprehensive Information Conceptual Model for a Mass Casualty Continuum of Care. The conceptual model proposes key relationships among entities/factors in mass casualty events needed to provide real-time visibility of data that track patients, personnel, resources and potential hazards to improve responders’ situational awareness. Validation of the model is being done using Delphi techniques that establish consensus among a panel of experts.

Problem
There is a paucity of literature evaluating mass casualty systems and no clear ‘gold standard’ against which to measure the performance of a triage system. Most of the research related to the use of information systems employed for triage and the care of mass casualties involves the evaluation of existing or emerging technologies without a clear understanding of the information, systems and decision support needs of clinicians and public health officials. In addition, there is no established theoretical framework for evaluating the effectiveness or efficacy of information decision support systems for mass casualty events.

Purpose
The primary goal of the conceptual model is the real-time tracking and visibility of patient data from point of injury to point of definitive care as a basis for an effective information infrastructure that allows real-time communication between and among the multitude of disciplines that respond to a mass casualty event.

Theoretical Underpinnings of the Model
The MCCM was derived from two systems theories (Structural Contingency Theory, and Technology Theory) and one informatics model (Vicente’s [2004] Human-Tech Ladder Model). Research structured around a continuity of care model supported by interdisciplinary teams of healthcare professionals - as opposed to episodic, one-on-one care – may help to move science forward in the area of emergency preparedness and ultimately maximize survival rates during times of mass casualty incidents. Once validated, the conceptual model will provide a useful framework from which researchers can study the impact of context and emergent relationships among patients, personnel, resources and potential hazards on the information needed to support effective triage and management of mass casualties. To that end, the model incorporates the information technology needs of the various multidisciplinary teams that must collaborate to provide care during a mass casualty event.

Methodology
The Delphi technique, a systematic interactive method based on independent inputs of selected experts is being used to build consensus among a panel of experts. Group interaction of experts is facilitated by using: a website developed to provide supporting information about the Delphi process and model; and an internet on-line survey development and processing tool to solicit the anonymous responses of the experts. Each round of questionnaires is followed by the reporting of the entire group response with group means, rating distributions and comments included.

Evaluation and Results
This is an ongoing dissertation research project and results of the final validation of the model are not available at this time.