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Ahlam E.H. Tannouri*, Mathematics Department, Morgan State University, 1700 E.Cold Spring, Baltimore, MD 21251, and **Sam F. Tannouri** and **Belinda Kauffman**. *Strategies to Deploy Temporary Ambulatory Medical Services in Response of a Catastrophic Event*. Preliminary report.

In case of a catastrophic event, two major problems arise, traffic congestion to reach a medical facility and the wait time for service. In order to alleviate the congestion, primary emergency medical services can be deployed temporary in strategic locations in such a way that the average wait time is minimized. The local analysis of the queuing system arising at each medical station is collected and the feedback is used to reassign traffic in order to divert patients to a less congested station when the wait time goes beyond a preset tolerance. We propose an algorithm to dynamically assign the best temporary location of primary medical services in function of distance and users density in different location of a metropolitan area. Visual Analytics tools using confluent graph will be used to help display data and take decision on the fly. The challenges would be to test the algorithm using reel data associated with a specific geographic location. We will simulate preliminary results using primary Data collected from a study supported in part by the U.S. Department of Homeland Security through a grant awarded to the National Center for study of Preparedness and Critical Event Response at Johns Hopkins University. In this study, data was collected for a year from a local hospital (Received September 22, 2011)