Emergency Notification System

Analysis

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Introduction
Howard County Office of Emergency Management is responsible for:
• Developing and maintaining emergency management plans
• Providing guidance to support agencies on the development of disaster management plans
• Providing countywide planning, training and exercise programs to prepare county residents for natural, technological, and man-made emergencies
• Coordinating County’s Emergency Operations Center during times of emergency

Motivation
• HeadsUpHoward, the Howard County emergency notification system was implemented over four years ago
• The HeadsUpHoward system is registered only by three percent of the Howard County population
• This project focuses on providing:
  - Recommendations to improve reachability of the HeadsUpHoward system
  - Suggest additional channels of communications to send emergency notifications

Data Collection Methodology
• Network data from social media websites
• Online survey
• Telephonic interviews
• Online resources

Data Collection and Analysis Tools Used
• NodeXLPro Network Graph tool
• Gephi Visualization tool
• Netvizz v1.25 application
• Qualtrics Survey Tool
• Ritetag.com to get Hashtag Analytics

Steps Performed
• Analysis of network data using Gephi visualization tool
• Analysis of survey results using Qualtrics survey software
• Analysis of interview responses
• Analysis of information gathered through online resources

Recommendations
• Additional communication channels
  - IPAWS
  - Geo-fencing
  - Social media
    a. Twitter Alerts
    b. Facebook page
    c. Twitter account
  - Mobile apps
• Recommending strategies for getting the public to sign up for emergency alerts.
  - Geo-Targeted Facebook Ads
  - YouTube for Government
  - YouTube Advertisements
  - Geo-Targeted Ads on Webpages
  - Google AdWords
  - Widgets
• Recommendations to enhance current system based on survey results.
  - Improve reachability by using Hashtags

Challenges
• Allocating time to collect information from other county emergency offices through telephonic interviews
• Getting responses for the online survey

Successes
• Major project milestones met on time
• Identified critical path for data collection and analysis

Deliverables
Provide detailed report entailing:
• Limitations of the current notification system.
• Analysis results of additional methods of communication such as social media websites, Geo Targeted Robocalling, and IPAWS
• Provide recommendations to:
  - Improve reachability of the notification system
  - Utilize additional channels of communication to enable two-way communication
  - Enhance current notification system