

GEOCOLLABORATIVE CRISIS MANAGEMENT (GCCM)

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West Nile Virus Project

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<http://www.geovista.psu.edu/grants/GCCM/>

ABSTRACT

The West Nile Virus (WNV) study is a project initiated by GCCM that seeks to research the use of portable devices in the WNV program. Efforts in this initiative have included informational meetings with managers and field workers in the WNV program, extended follow-up interviews, and plans for ethnographic observation of field workers as they perform their daily tasks using portable devices. The efforts of GCCM in this venture are beneficial for a number of reasons. By eliciting knowledge from WNV employees, we can determine how mobile devices can be improved to encourage their widespread use and improve emergency response procedures in the program. Additionally, interviewing WNV field workers and program stakeholders affords GCCM with the opportunity to acquire scenarios for incorporation into dialogue-enabled emergency simulations.



GCCM Objectives:

- Gain knowledge of WNV activities (e.g. dipping, trapping, technology use) via knowledge elicitation of WNV managers and field workers
- Improve current mobile technologies used within the WNV program for more efficient workflow and emergency response
- Develop scenarios relating to WNV activities for use within dialogue-enabled simulation systems

WNV Program Description



Dipping

This activity involves gathering sample water from various sites in which mosquitoes are most likely to subsist to test for WNV. Field workers must store this information on hardcopy or in a PDA before it can be entered into the WNV database. The descriptions of the sites (and WNV positive results) are then made available to the public shortly after the sample is analyzed.



WNV Technologies

Two key mobile devices are currently in use in the WNV program. The PDAs allow WNV field workers to digitally document site and mosquito descriptions while they are in the field. The mobile GIS devices permit field workers to obtain the exact latitude and longitude of their dipping or trapping site.



Trapping

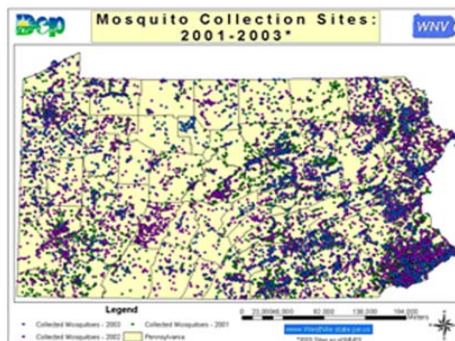
This action requires setting traps for the collection of mosquitoes for WNV analysis. Similar to dipping, WNV field workers document the site and mosquito type on either hardcopy or a PDA. After analysis, the information is recorded in the WNV database and made available to the public.



The GCCM Challenge

Results of recent knowledge elicitation sessions with WNV employees imply that the PDAs are not fully compatible with field worker activities and have therefore been met with some resistance. It is the goal of GCCM to enhance and improve the features of the PDAs to make them a more viable option for information capture, storage, and retrieval.

The West Nile Virus Program is prevalent throughout the state of Pennsylvania. Records of all testing sites and WNV results are stored for future reference by WNV employees.



ACKNOWLEDGEMENTS

Pennsylvania West Nile Virus Program, Department of Environment Protection, Harrisburg, PA
PA WNV: www.westnile.state.pa.us

This material is based upon work supported by the National Science Foundation under the Digital Government program (EIA-0306845).

GCCM is a joint project of

- The Pennsylvania State University
- The GeoVISTA Center, Department of Geography
- The School of Information Sciences and Technology
- The Department of Computer Science and Engineering
- Advanced Interfaces, Inc.