
Practices Recognition Form

Part 1 - Project Summary

Project Title: Historical EMS Data Access and Reporting

Project Description: Maryland has employed 3 central prehospital care documentation and reporting software applications since Calendar Year 1993. Each has built upon the previous generation in the extent of crash information and offered different platforms for reporting. This new application permits uniform reporting over 20 years, in a commonly known format, by various stakeholders regarding the EMS perspective of crash demand, response, and outcome at the statewide/jurisdictional level.

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Project Manager Contact Information:

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Lead Agency for Project: Maryland Institute for Emergency Medical Services Systems

Participating/Cooperating Agencies (if any): None

Which National Agenda goals apply:

Goal I (*To instill an appreciation of the value of highway safety information systems among state, national, and local leaders who have a responsibility for developing and managing highway transportation safety policy*): MIEMSS is dedicated to sharing non-confidential crash record information with those individuals/organizations who would benefit from historical data review from an EMS perspective.

Goal II (*To establish a means by which collection, management, and use of highway safety information could be coordinated among all organizations at all jurisdictional levels with responsibility for highway transportation policy*) These data would serve as a preliminary resource for timely and easily formatted reviews, at the jurisdictional level, and offer a relative comparison to the same data statewide.

Reference the priority in your traffic records strategic plan to which this project applies:

- 1) TRCC09 - Specify integration parameters among established stakeholders to allow for secure electronic exchange of data..
- 2) TRCC13 – Task various data owners to provide short training sessions to TRCC members about the capabilities and uses of their data systems and data, as well as availability of such data to assure no opportunity to use data is lost to ignorance of its existence.
- 3) ISS05 – Seek at least one funding opportunity to maintain the EMS and trauma data system
- 4) CODE04 – Develop research-level (redacted) datasets that users can download.

Project Cost: planned \$: 8,000 actual \$: 6,400

Extent of Project Implementation: As of July 2013, all records submitted to MIEMSS from CY 1993 though CY 2012 in historical reporting formats have been uploaded to the new reporting application. Next step is to separate by reporting jurisdiction and disseminate. The key feature will be a jurisdiction’s ability to easily build reports for jurisdictional and state comparison (state totals are minus their jurisdictional influence) for comparison sake over an 18 year period.

Summary of Project Benefits: Many times historical data is inaccessible due to incompatibility with newly implemented information systems. This reporting approach will ensure that all stakeholders from the Maryland TRCC, who have questions regarding the geographic and temporal associations of EMS management of crash victims, will be the beneficiaries of historical data access. This is accomplished through an Excel like reporting format, of uniform data, encompassing the past 18 years of multiple data submission formats. Single or multiple stratified data element cross-tab tables can be easily produced, reviewed in detail for question clarification or decision making. Selection from multiple graphic formats can be chosen for the best display medium.

Part Two: Project Detail

Project Description: Maryland’s historical EMS data has been warehoused in a SQL server database since 1993. While the data is accessible, it’s only accessible to those MIEMSS personnel who have moderate to extensive programming skills. The application designed and implemented by Mr. Thompson permits users familiar with Excel pivot table creation to create tables in the same fashion by clicking on and dragging desired data elements into a workspace. At this juncture, elements can be presented in tabular form, cross-tabbed, further stratified by other data element selections, with one click converted to percents, and graphed accordingly.

These data presently reside at MIEMSS, but will be selected for all reports and associated data elements for crash scene incidents. Each jurisdictional representative will receive access to their data along with state aggregate data, minus their jurisdiction’s data.

Describe the major process steps for your project, including any unique aspects that enhanced success: We pulled common data elements from the various pre-hospital provider care datasets into a single repository. The resulting dataset is then processed (cubed) using Microsoft SQL Server Analysis Services and made available for slicing and dicing with Excel 2003 or higher version. Microsoft Excel is an excellent choice for creating and distributing this application due its ease of use and universal availability.

Examples of data points that can be analyzed with this application include, but not limited to, incident/call dates, EMS response times, patient triage priority, incident location, etc.

To be developed will be the access means for authorized users to access data and the development of training materials for TRCC stakeholder education.

Provide the evidence and reasoning used to determine the success of the project: These data have all been successfully converted to a cubed reporting environment. The resulting dataset will be made available to crash record stakeholders who otherwise would have never seen these records and associated data value. Preliminary questions can be posed against these data to either work proactively find potential areas of improvement or used to substantiate/refute hypotheses in a collaborative, data driven environment.

Why should this project be recognized as a best practice in traffic records: Maintaining and providing confidential access, of historical dataset that spans 18 years, will offer an invaluable data resource. Users who have a “front line” exposure and program responsibility regarding prevention strategy implementation; or maintaining quality control monitoring reflective of reliable baselines; or identifying and implementing quality improvement initiatives can begin their endeavors with this emergency medical services data perspective.

The use of these data be made available in an already widely known format (pivot tables) and easily moved to widely held reporting format (Excel graphics). This approach will provide the distribution, implementation, training, and use of results the best chance of appropriate, secure access.

I would like to have this project considered for presentation during one of the forum sessions

Yes, oral presentation Yes, poster presentation No