

Arizona Bureau of EMS and Trauma System, Services Section

Ben Fisher, Section Chief (602) 542-2246 benjamin.fisher@azdhs.gov

Vatsal Chikani, Statistician (602) 364-3191 vatsal.chikani@azdhs.gov

Anne Vossbrink, Registrar (602) 364-3164 anne.vossbrink@azdhs.gov

ADDRESSING DATA FATIGUE IN A STATE EMS SYSTEM

INTRODUCTION: Arizona's EMS registry was established in 2011 using NEMESIS standards. By 2018, stakeholders complained of frequent, costly changes and variable data quality. Following NEMESIS V3 implementation, stakeholder angst caused the Bureau of EMS and Trauma System (Bureau) to halt changes and review registry policies. This began a series of stakeholder discussions to identify data needs, devise methods to review and approve changes to the data set and to assess data quality, and share data quality results with contributors.

OBJECTIVES:

1. Conduct a state data needs assessment to identify the appropriate data set;
2. Create an approval process for changes to the new "Cactus Data Set" (CDS);
3. Develop methods to assess CDS quality, and
4. Share CDS quality results with contributors.

METHODS:

1. Based on stakeholder feedback, staff identified data elements used in EMS reports over the past 7 years plus required NEMESIS and state elements to create the CDS, which included 126 data elements, 28 fewer than the previous data set.
2. Future changes to the Cactus data set requires 4 steps:
 - Daily operation of the EMS registry is managed by staff and a stakeholder workgroup (Usergroup). Usergroup will propose changes to the CDS.
 - The Usergroup proposes changes to the Performance Improvement Committee (PIC), consisting of researchers, QI staff, physicians, EMS and trauma providers PIC votes on proposed changes.
 - The PIC proposes changes to the State EMS Council. The outcome of the Council's vote becomes the approved change to the CDS for the next year.
 - Staff notify vendors of changes to the CDS and request changes be adopted by January 1.
3. Once the final data set is approved by the EMS Council, the Bureau's epidemiologists and statistician create an agency specific data completeness report to serve as a guide for determining data completeness standards for each of the specific Cactus data elements using SAS version 9.3.
4. Annually, the EMS Council adopts a minimum data quality threshold that agencies must meet. Year-one data quality score is the benchmark for future data quality thresholds. Each contributor can obtain their data quality report from a secure portal. The report lists the agency's performance alongside aggregate performance for all contributors on 5 time-sensitive diseases.

4) **RESULTS:** The EMS Council unanimously approved the CDS, the CDS revision process, and the CDS quality assessment methodology in Fall, 2018.

5) **CONCLUSION:** State EMS Offices must guard against data set and data process changes that negatively impact stakeholders. Focusing efforts on data that is used in EMS reporting reduces work and costs for stakeholders and should lead to improved data quality.