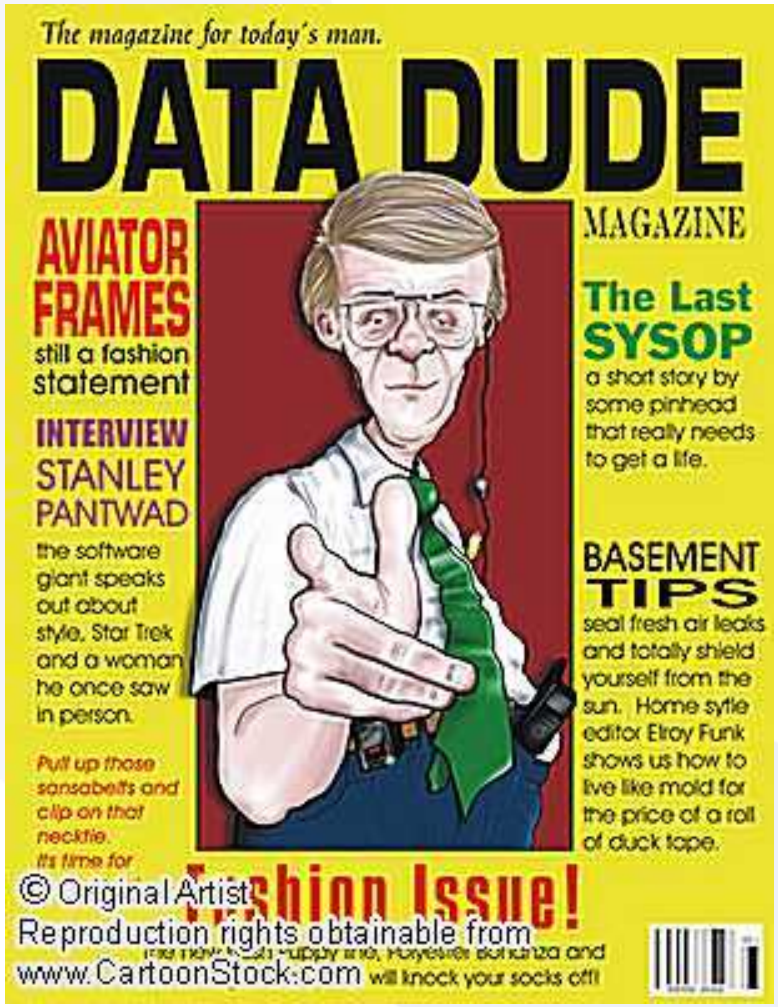
NEMSIS: Reaching Towards a National EMS Dataset

N. Clay Mann, PhD, MS
NEMSIS Technical Assistance Center

Overview

- Need for standardized data
- NEMSIS
  - Two complex objectives for achieve ONE SIMPLE GOAL
  - Where we are today
- Current spotlight on VENDORS & STATES!

Not just another project from Nerdtown!



History of EMS Data

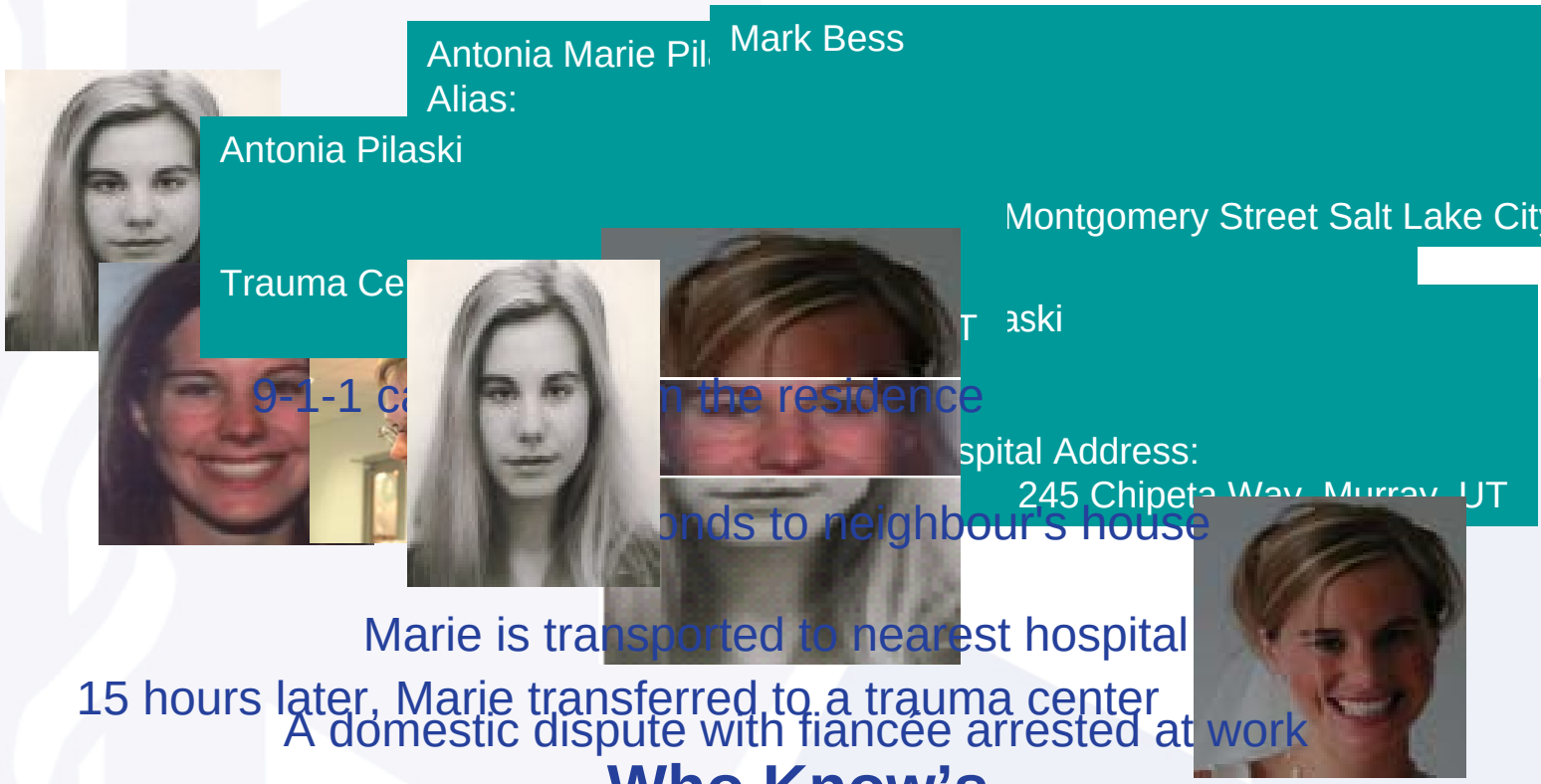
- We can date it back to the “modern age of EMS”
  - 1966: *Accidental Death and Disability*

“*A review of ambulance services in the United States indicates a paucity of information and a limited framework for the collection of data on and the evaluation of current ambulance services.*” (Page 13)

July, 2003

- “There is no nationwide standard for measuring emergency response times. A USA TODAY study of the 50 biggest U.S. cities found that most report only the slice of the response that looks most favorable: the time it takes for the emergency crew to drive to the scene.”
- “This official deception is not unusual. Los Angeles is one of many cities that routinely lie to themselves about their true response times to medical emergencies. The result is needless deaths.”

Why is EMS Data Collection Difficult?

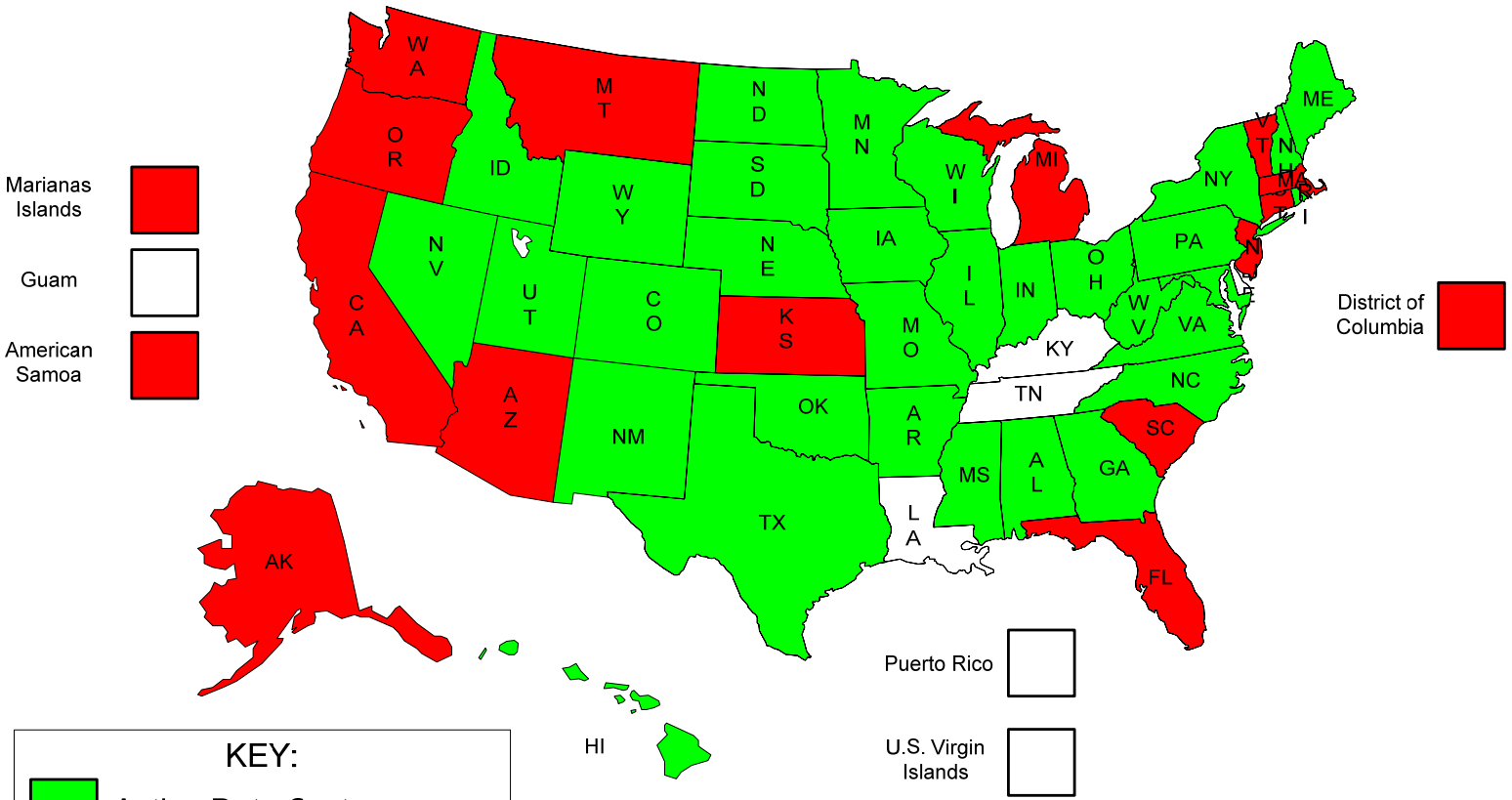


Who Know's
Marie's Story?

What is NEMSIS?

- NEMSIS - National Emergency Medical Services Information System.
- NEMSIS – provide for a national repository that will store EMS data from every state in the nation.

Status Among States

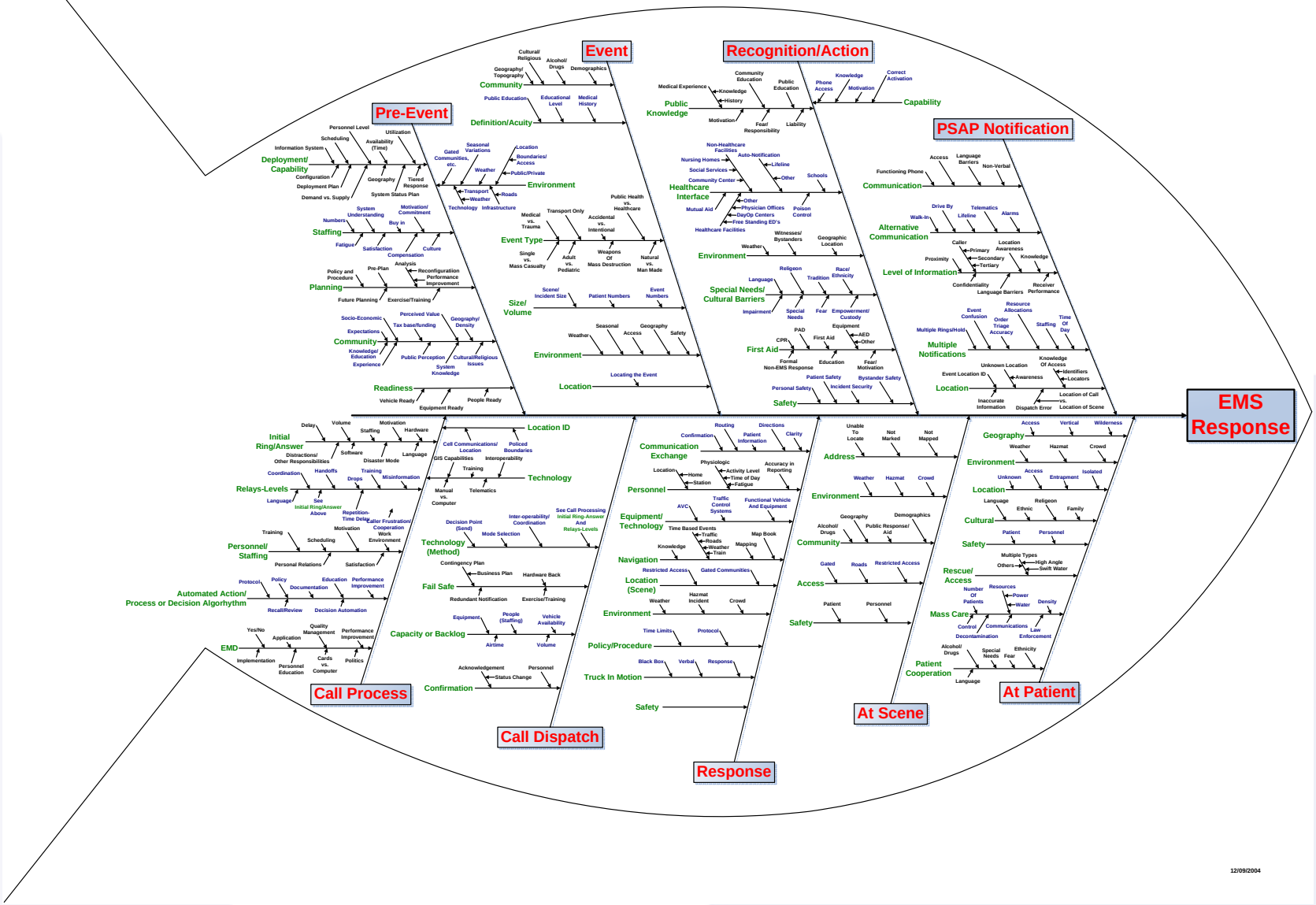


Source: NEMSIS TAC Capability Survey, 2006

The Need

- EMS Education
  - Curriculums
  - Local Education
- EMS Outcomes
  - Something other than death
  - System evaluation
- EMS Research
  - Generate hypothesis
  - Evaluate cost-effectiveness
  - Identify problems and target issues
- EMS Reimbursement
  - National fee schedule and reimbursement rates

EMS Performance Improvement Resource Center
EMS Response by Chronology

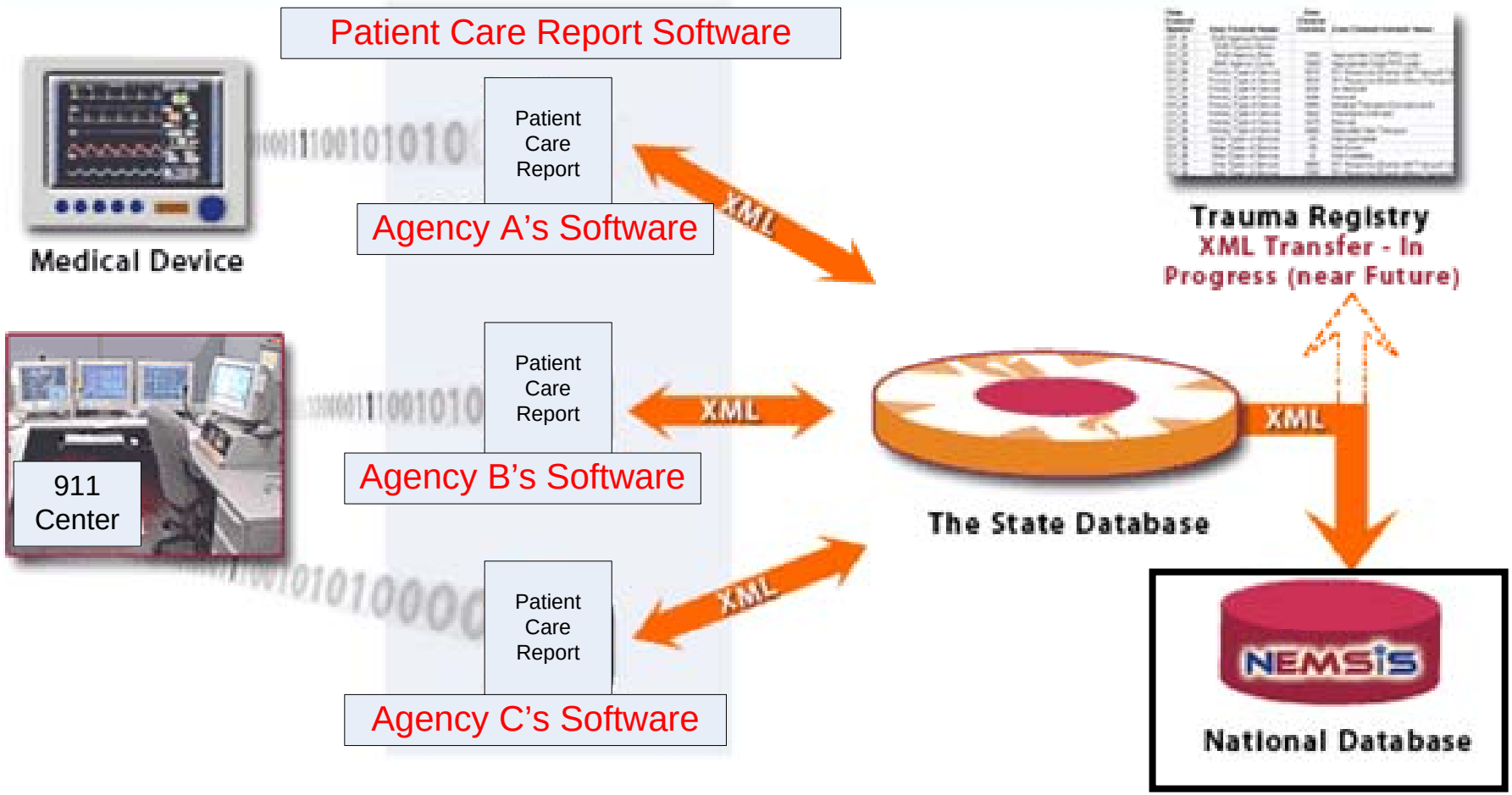


12/09/2004

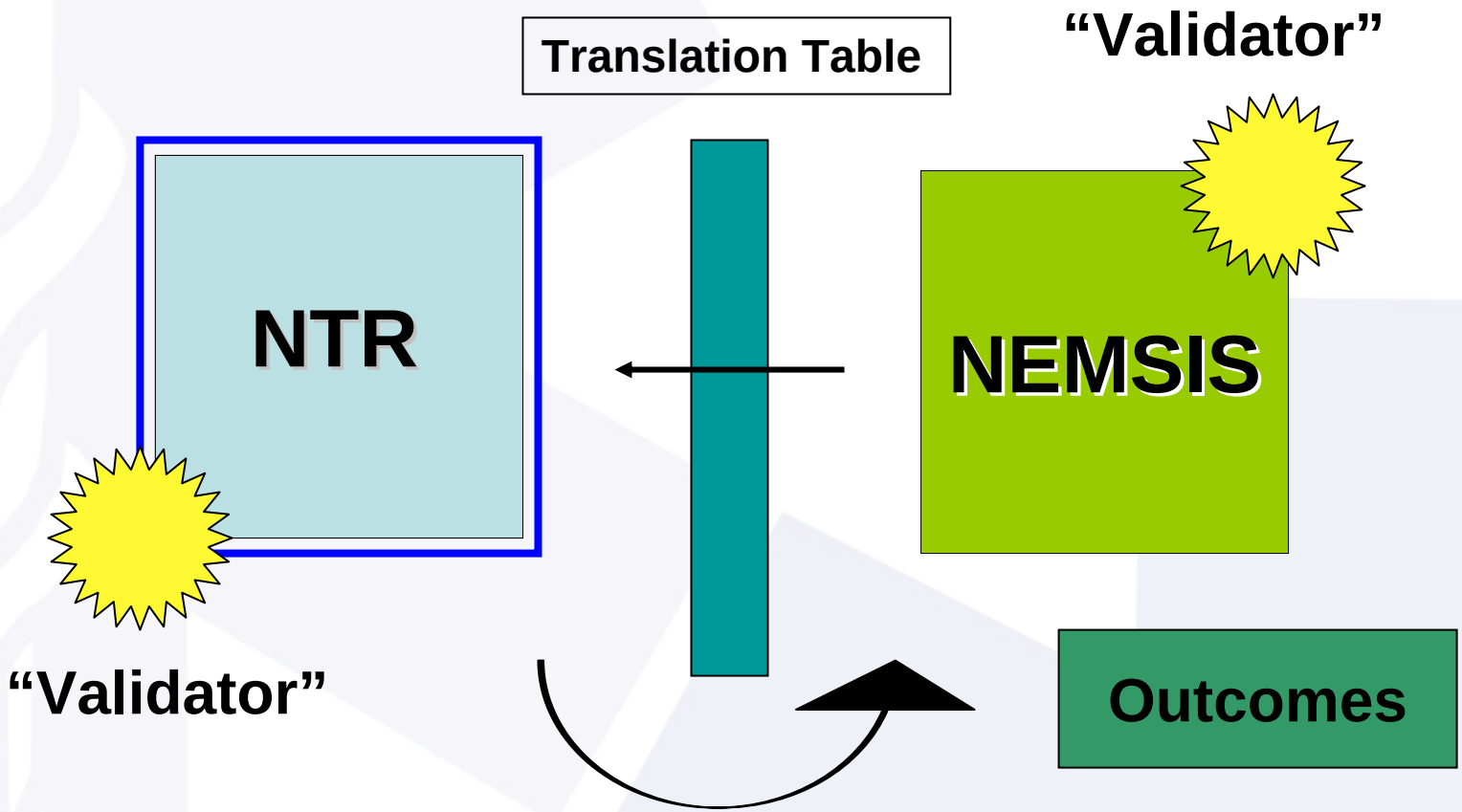
NEMSIS Objectives

- Compose a Uniform Dataset
  - Demographic dataset (EMS System)
  - EMS dataset (EMS Event)
- Ensure the Portability of Data
  - XML (eXtensible Markup Language)
  - XSD (XML Schema Definition)

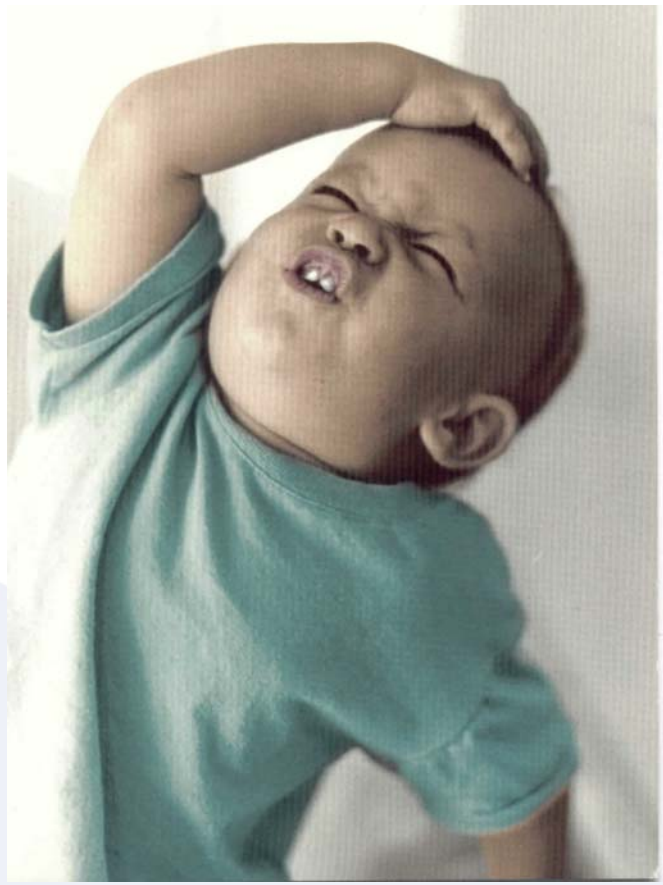
THE PORTABILITY OF DATA - the NEMSIS STANDARD.



Value of Combined NEMSIS & NTR

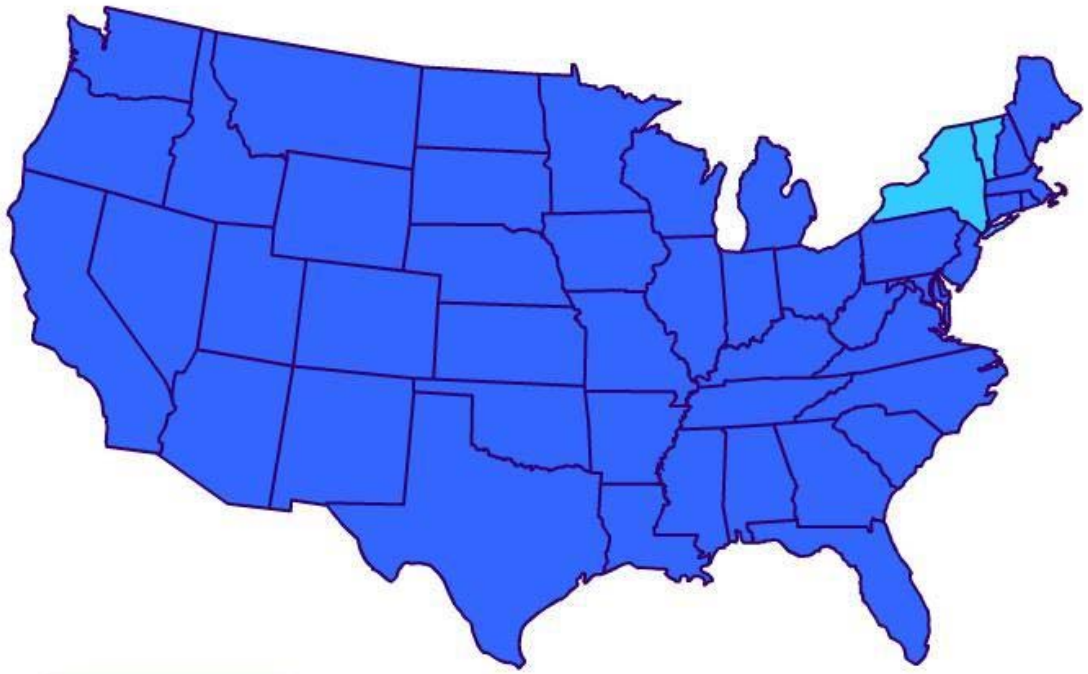


Where are we?



MOU Participant

Non-Participant



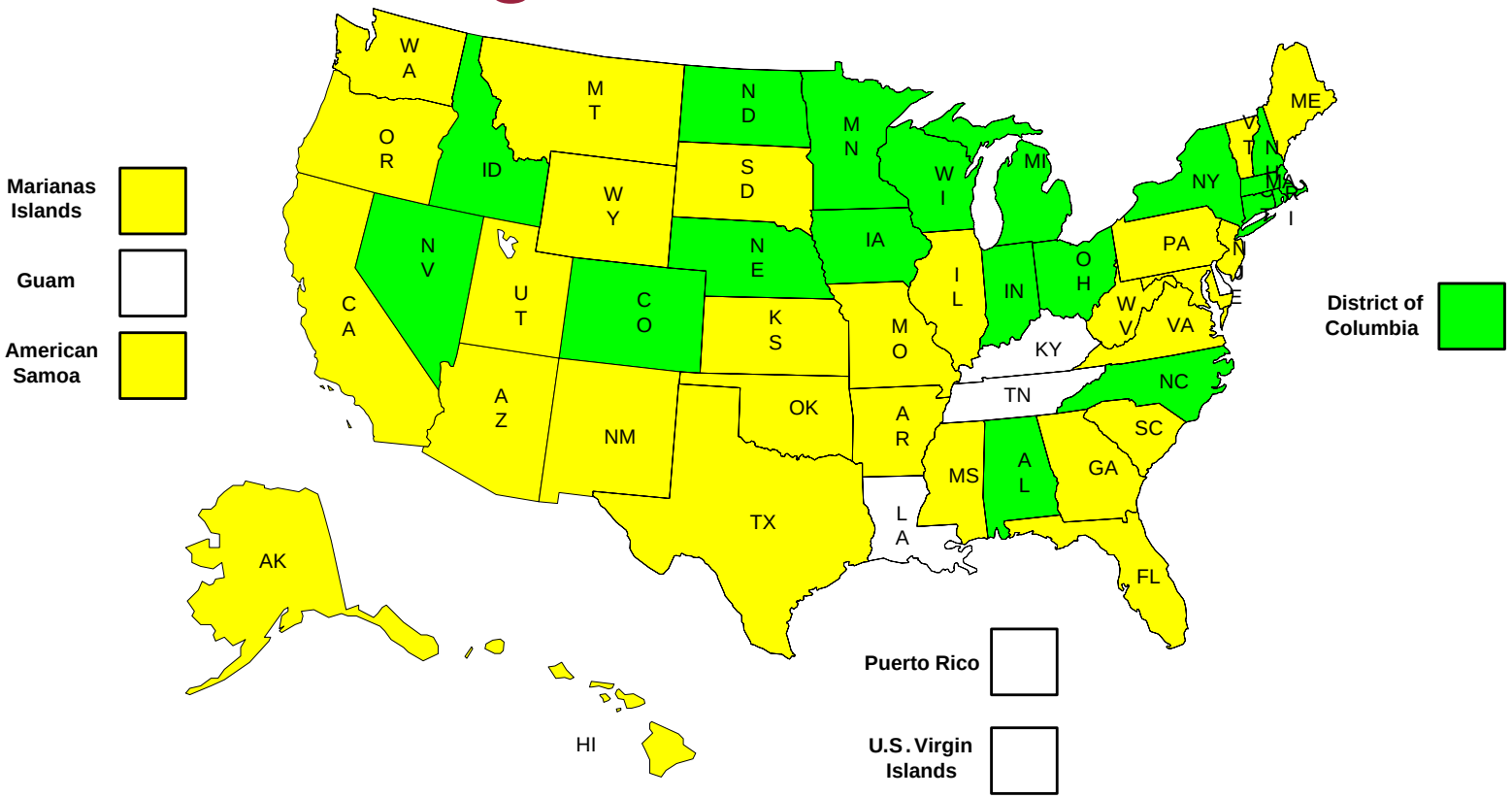
MOU Participant Territories:

- Guam
- Northern Marianas Island
- District of Columbia
- American Samoa

Non-Participant Territories

- Virgin Islands
- Puerto Rico

States Using the NHTSA Standard



KEY

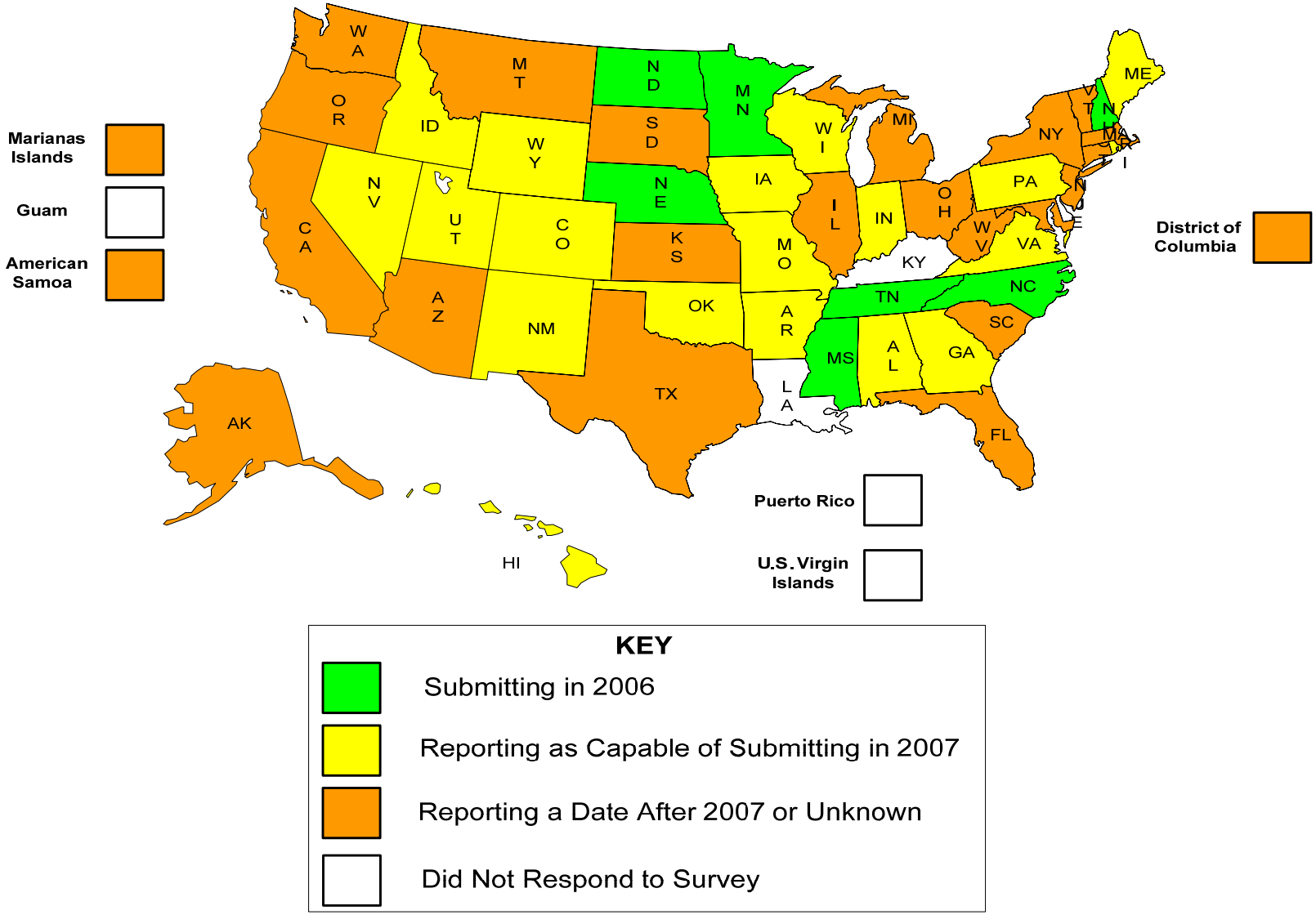
- EMS Data Dictionaries 100% Compliant with NHTSA 2.2
- EMS Data Dictionaries not 100% Compliant
- States not Reporting

Protracted Employment

- 33/49 states with uniform data dictionary

State	% Submitting	State	% Submitting	State	% Submitting
Wisconsin	4	South Dakota	75	Hawaii	100
New Mexico	10	Idaho	78	Illinois	100
Utah	20	Virginia	80	Maine	100
Colorado	50	Georgia	80	Minnesota	100
Texas	60	Ohio	85	Mississippi	100
Arkansas	60	Indiana	85	New York	100
Alabama	60	West Virginia	86	North Carolina	100
Iowa	65	Nebraska	90	North Dakota	100
Missouri	70	Oklahoma	95	Pennsylvania	100
Nevada	70	Wyoming	99	Rhode Island	100

National EMS Database



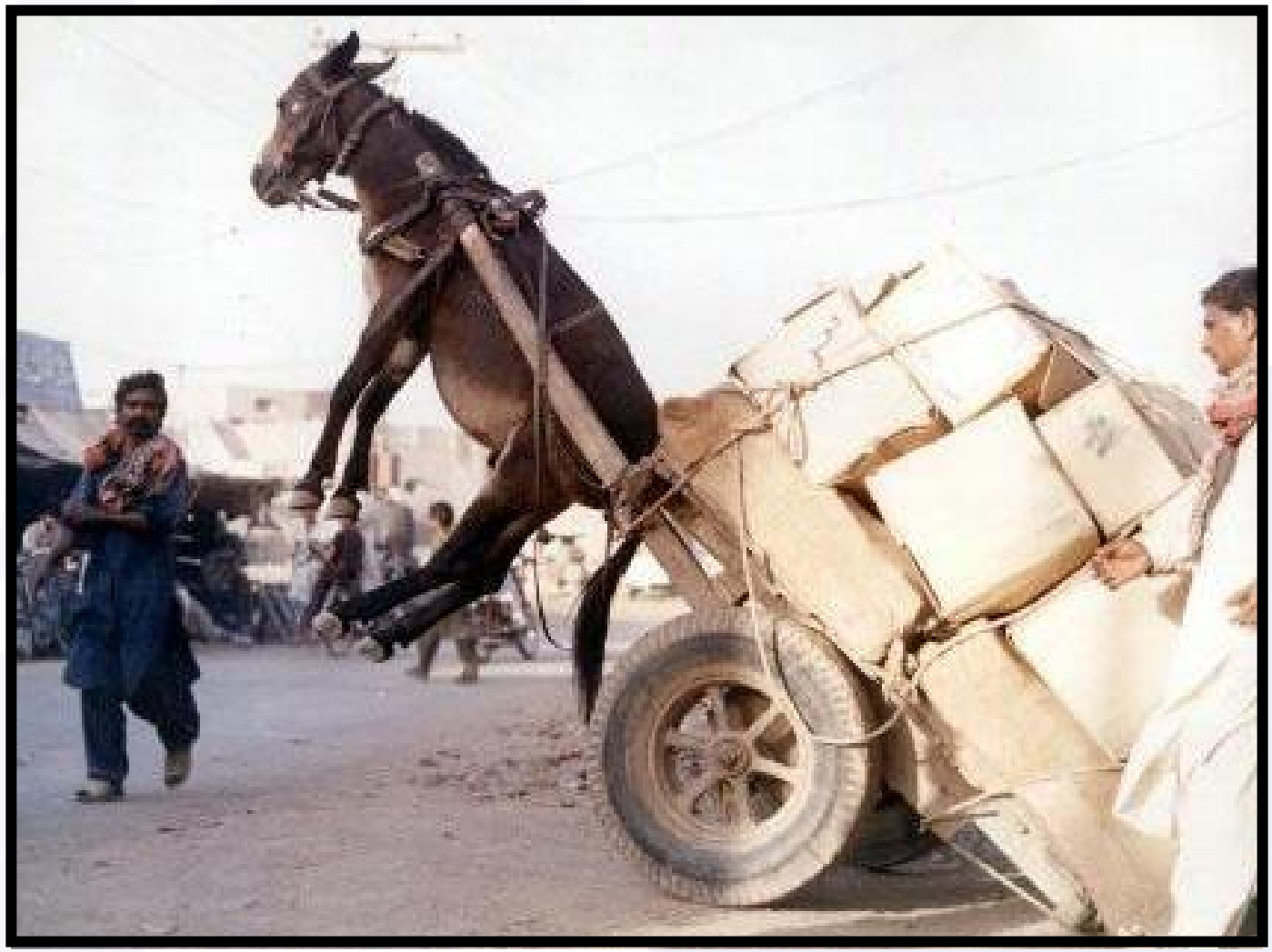
NEMSIS TAC

- To facilitate the collection of EMS data from States and Territories to create the National EMS Database.
  - Two campuses
  - Ten staff
  - NEDARC is offering assistance
  - Small grant opportunities

NEMSIS TAC

- Simple goal, complicated objectives
- This means that the TAC will be offering assistance to:
  - States
  - Local EMS agencies
  - Software developers

Process Seem Overwhelming?



NEMSIS TAC Resources

- www.nemsis.org
- Reference Documents
- NEDARC SWOT of EMS Data System
- NEMSIS-specific Site Visits
- Software Compliance Process
- NEMSIS Reporting Tools
- Small Grant Opportunities
- Other

www.nemsis.org

Software Compliancy

- On March 1, 2006, the TAC began testing software developers for compliance
- At the end of March there were over 15 applicants (multiple software packages too)
- There are two levels of compliance:
  - Gold
  - Silver

Silver and Gold Compliance

Silver (2)

- Must have the National elements
- Any additional elements must comply with the standard
- Must create the right XML/XSD files

Gold (4)

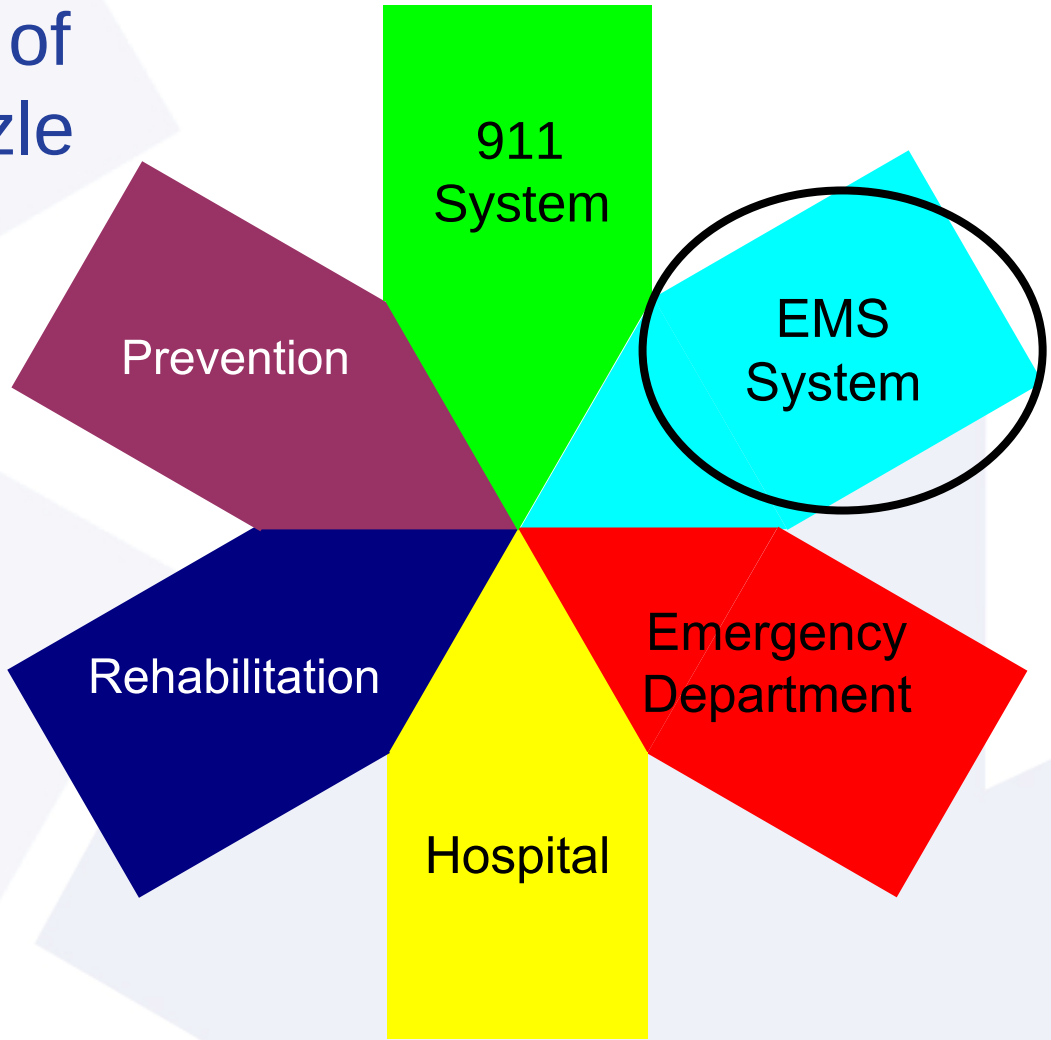
- Must be able to offer all of the elements found in the NHTSA dataset
- Must create the right XML/XSD files

National EMS Reporting

- 10 Reporting Domains
  - Data Quality Reports
  - Agency Reports
  - Elapsed Time Reports
  - Patient Characteristics Reports
  - Disposition Reports
  - Provider Reports
  - Cardiac Arrest Reports
  - Billing Reports
  - Delay Reports
  - Trauma Reports

Where We Need to Be

- EMS is one piece of a health care puzzle



Conclusion

- The NEMSIS Standard is here to stay
- The efforts of the EMS community (plus the standards) will improve patient care
- Data collection and evaluation are the first steps in characterizing and improving what we do

T H A N K

Y O U

Available Resources

Michael Schnyder

(801) 585-1631

Michael Ely

(801) 585-9761