

Model Performance Measures for State Traffic Record Systems

NHTSA

GHSA

Preusser Research Group, Inc.

Listening Session

GHSA Annual Meeting

September 1, 2009

Savannah, GA

Today's session

- Why do it? Reason for the project
Marilena Amoni, NHTSA
Barbara Harsha, GHSA
- What is it? Describe the project
Jim Hedlund, Highway Safety North and PRG – Project Director
- What does it mean to me? Implications for States
Amoni and Harsha
discussion
- What happens now? Next steps
Harsha and Hedlund

Why do it? Reason for the project

- Improve State traffic record systems
- Help State TRCCs involve all traffic record systems
- Promote greater cooperation and coordination within and between traffic record system components
- Provide States with direction when developing performance measures for their data systems and data grant programs
- Get ahead of the performance measure curve
- Performance measures will be prominent in reauthorization: “If we don’t do this, Congress will do it for us (or to us)”

What is it? Project description

Staffing

- PRG – Contractor
- Jim Hedlund, Highway Safety North – Project Director
- Jackie Schraf – NHTSA Project Director

- GHSA – Subcontractor
- Barbara Harsha and staff
 - liaison with States, Traffic Records community
 - facilities for panel meetings

- Expert panel – draft the performance measures

Expert panel: 25 State and 7 federal members

- 5 teams, each with chair and 5 or 6 others
 - C: crash data
 - D/V: driver and vehicle data
 - R: roadway data
 - C/A: citation and adjudication data
 - I: injury data
- Each team contains experts in
 - data collection
 - data file maintenance
 - data use
- State panel members come from 20 states and all 10 NHTSA regions
 - panel member names in white paper

Data systems (p. 2-3)

- Crash: State crash file
- Vehicle: State vehicle registration file
- Driver: State driver license and history files
- Roadway: State files on roadway characteristics, condition, AADT
- Citation and Adjudication: traffic citations, arrests, convictions, sentences
 - State, municipal, and local files
- Injury: State EMS, Emergency Department (ED), Hospital Discharge (HD), Trauma Registry files
 - not all States have all these files

Performance areas (p. 3-4)

- **Timeliness:**
 - time from event until data on file and available for use
 - time from event until data passed on to user system
- **Accuracy:**
 - data valid, internally consistent
 - data coded properly per external checks
- **Completeness:**
 - no missing data for records on file
 - file contains all events

Performance areas (p. 3-4)

- **Uniformity (consistency):**
 - all reporting jurisdictions have same procedures, data
 - agree with national guidelines and standards
- **Integration:**
 - data files can be linked to appropriate other files
- **Accessibility:**
 - information readily and easily available to main users

Performance measure matrix (p. 1)

	Timely	Accurate	Complete	Uniform	Integrated	Access
Crash						
Vehicle						
Driver						
Roadway						
Cit/Adj						
Injury						

Activities and schedule so far

- Oct. – Dec. 2008: form panel, prepare background materials
- Feb. 18-19, 2009: first panel meeting
- April 1: white paper with draft performance measures out to full panel
- July 1: white paper with draft performance measures out for public comment
 - posted on GHSA website: www.statehighwaysafety.org/
 - comments due September 4
- Summer: present at Traffic Records Forum, GHSA

Recommended performance measures (p. iii)

	Timely	Accurate	Complete	Uniform	Integrated	Accessible	Total
Crash	3	3	2	1	2	1	12
Vehicle	1	1	1	1	1	1	6
Driver	3	2	2	1	1	1	10
Roadway	2	2	2	1	2	2	11
Cit/Adj	1	1	1	2	1	2	8
Injury	1*	1*	4*	1*	3*	1*	11
Total	11	10	12	7	10	8	58

* Some measures apply to more than one Injury data system.

Examples of recommended measures

	Timely	Accurate	Complete	Uniform	Integrated	Access
Crash						
Vehicle						
Driver						
Roadway						
Cit/Adj						
Injury						

Examples of recommended measures

- **Crash timeliness:**
 - Median number of days from the date of a reported crash until it is entered into the State crash file.
- **Vehicle accuracy:**
 - Percent of records on the State vehicle registration file with successfully validated VINs using standardized VIN verification software.
- **Driver completeness:**
 - Percent of missing or unknown critical data elements on the State driver record file.
Critical elements are those required by CDLIS except for those that apply only to commercial drivers.

Examples of recommended measures

- Roadway uniformity/consistency:
 - Number or percent of MMIRE roadway inventory elements collected and entered into the State roadway inventory file.
- Citation/adjudication integration:
 - Percent of law enforcement agencies issuing traffic citations that have policies in place to facilitate the transfer of citation data between authorized users.
- Injury accessibility:
 - Time (number of days after January 1) until the annual State EMS file is closed and available for analysis by other stakeholders.

Data System	Performance Area					
	Timeliness	Accuracy	Completeness	Uniformity	Integration	Accessibility
Crash	1- median days from crash to file entry 2- % crashes on file in #XX days 3- median days from crash to location coding on crash file	1- % crashes w/ < #XX data elements w/ errors 2- % in-State vehicles VIN match to vehicle file 3- % crashes w/ location code	1- % crashes missing ≥ 1 critical data elements 2- % crashes w/ \leq #XX incomplete data elements	1- # MMUCC-compliant data elements	1- % in-State drivers on crash file linked to driver file 2- % crashes w/ EMS linked to EMS file	1- # auth. agencies capable of accessing crash file
Vehicle	1- median days from owner change to vehicle file update	1- % vehicles on vehicle file w/ valid VIN	1- % vehicles on vehicle file w/ no missing MMUCC data elements	1- % vehicle file data elements comply w/ AAMVA and MMUCC stds.	1- # relevant data files linked to vehicle file	1- avg. # days from temp. vehicle reg. to vehicle file entry
Driver	1- median days from conviction to driver file entry 2- % convictions on driver file in 10 days 3- median days from final adjudication to driver file entry	1- % in-State driver convictions linked to driver file 2- % drivers on file w/ verified Soc. Sec. #	1- % missing or unknown critical data elements on driver file 2- % adjudication agencies reporting convictions to driver file	1- % driver data elements complying w/ AAMVA, MMUCC, Real ID standards	1- # relevant data files linked to driver file	1- % adj. agencies or adjudicators w/ immediate driver file access
Roadway	1- avg. days from construction project end to road file update 2- avg. days from critical data element collection to entry on road file	1- % road segments w/ errors on critical data elements 2- % crashes on public roads located on basemap or file	1- # or % of public road miles on basemap 2- # or % of public road miles w/ critical data on basemap or file	1- # or % of MMIRE data elements collected and entered on road file	1- road file linked to crash, other files 2- # or % of highway inventory files linked to basemap or road file	1- # or % of auth. users acquiring data from road file 2- % requests filled by State deadline

Data System	Performance Area					
	Timeliness	Accuracy	Completeness	Uniformity	Integration	Accessibility
Cit/Adj	1- median days from citation to file entry at first repository	1- % citation file records w/ errors in critical data elements	1- % missing critical data elements on citation files	1- % citations on driver file w/ unif violation codes 2- % law enforcement agencies w/ common citation form	1- % law enforcement agencies w/ policies for citation data transfer	1- % citation files accessible to auth. users 2- % auth. users w/ access to citation files
Injury	1- median days from event to file entry ^{abcd}	1- % error-free records ^{ad}	1- % agencies reporting ^{ad} 2- % EMS records w/ no missing NEMSIS data elements 3- % records w/ ICD-9 E-code ^{bcd} 4- % records w/ missing data for ≤ 5 standard data elements ^{ad}	1- % records compliant w/ national standards ^{ad}	1- % Trauma Reg records w/ EMS linked to EMS file 2- % EMS records fr. crash linked to State file ^{bc} 3- % records on file ^{bcd} w/ crash E-code linked to crash file	1- # days after Jan. 1 until file closed and available ^{abcd}

number
 % percent
 #XX a number to be specified by each State

a State EMS file
 b State Emergency Department file
 c State Hospital Discharge file
 d State Trauma Registry file

What does it mean for me?

Implications for States

- What will the final performance measures look like?
- What will we be required to do?
- When must we start?
- How do these measures relate to the Sec. 408 grants?
- What help will we get from NHTSA and GHSA?
- Will there be funding to implement the measures?
- What if we can't implement some measures now?
Or for a long time?
- ...
- ...

What happens now: Activities and schedule

- Oct. – Dec. 2008: form panel, prepare background materials
- Feb. 18-19, 2009: first panel meeting
- April 1: white paper out to full panel
- July 1: white paper out for public comment
- Summer: present at Traffic Records Forum, GHSA
- Sept. 4: white paper comments due
- Sept. 29: second panel meeting
- Nov. 1: final report draft to panel
- Jan. 1, 2010: final report draft to NHTSA
- April 1: final report issued

Send in your comments

To: headquarters@ghsa.org

heading: Record system performance measure comments
from (name of organization or person)

By: September 4, 2009

