MMUCC Committee – IT Database Design and Administration Subcommittee Meeting

April 13, 2023

1:30 – 3:00 PM Eastern

Microsoft Teams

I. Participants
   A. Committee Chair – Joanna Reed, NHTSA
   B. Subcommittee members
      1. Allison Hawley — Minnesota Department of Public Safety
      2. Christopher Osbourn — Tennessee Department of Safety and Homeland Security
      3. David Kelly — Pennsylvania Department of Transportation, Bureau of Operations
      4. Dennis Kleen — Iowa Department of Transportation, Driver Data Systems and Administration Bureau
      5. William Roseburgh — Florida Highway Patrol
   C. Federal Liaisons
      1. NHTSA
         - Tom Bragan
         - John Metcalf
         - Jonae Anderson
         - Michael Parsons
         - Donna Glassbrenner
         - Rebecca Dieken
         - Beau Burdett
         - John Siegler
         - Joshua DeFisher
         - Tonja Lindsey
   D. VHB
      1. Chelsea Palmateer
      2. Courtney Ruiz

II. Review data elements
   A. P12. Seating Position
      1. Discussion: **Appended to a Motor Vehicle for Motion** is used for situations where a person (usually on a bike, skateboard, or skates) is attached to a vehicle via hand grasp, rope, or some other method and are using that vehicle to propel them. This is sometimes called “skitching.”
      2. Suggestions: No Suggestions.
   B. P13. Restraint System Use
      1. Discussion: No discussion.
      2. Suggestions: No suggestions.
   C. P14. Helmet Use
      1. Discussion: No discussion.
      2. Suggestions: No suggestions.
   D. P15. Airbag Deployed
      1. Discussion: The updated data element no longer allows multiple airbag selections. If multiple airbags are deployed, the user would code **Combination**.

This may present challenges for data analysis. This element is collected for each person.

2. Suggestions: No suggestions.

E. P16. Ejection
   1. Discussion: For the purposes of this data element, an occupant cannot be ejected from a motorcycle. Two-wheeled Motorcycles almost always end with the bike falling to the ground and the occupant falling off. The implementation suggestion for this element is to autofill **Not Applicable** for occupants of motorcycle vehicle types. You can be ejected from an ATV. Three-wheel motorcycles may be more similar to ATVs than 2-wheeled motorcycles. The implementation suggestion should remove 3-wheeled motorcycles.
   2. The draft MMUCC implementation suggestion reads: "If the MOTOR VEHICLE BODY TYPE CATEGORY for this person is **Moped**, **2-Wheeled Motorcycle**, or **3-Wheeled Motorcycle**, then autofill this element with **Not Applicable**."
   3. Suggestions:
      - Remove **3-Wheeled Motorcycle** from the implementation suggestion.

F. P17. Law Enforcement Suspects Alcohol Involvement
   1. Discussion: The MMUCC element only applies to drivers and non-motorists. States may collect this for all people involved if they would like.
   2. Suggestions: No suggestions.

G. P18. Alcohol Test
   1. Discussion: The MMUCC element only applies to drivers and non-motorists. States may collect this for all people involved if they would like.
   2. Suggestions: No suggestions.

H. P19. Law Enforcement Suspects Drug Involvement
   1. Discussion: The MMUCC element only applies to drivers and non-motorists. States may collect this for all people involved if they would like.
   2. Suggestions: No suggestions.

I. NM1. Vehicle Number of Motor Vehicle Striking Non-Motorist
   1. Discussion: No discussion.
   2. Suggestions: No suggestions.

J. NM2. Non-Motorist Status Prior to Critical Event
   1. Discussion: The name of this element would be difficult to label in a database. PA calls this element "Movement." They have Movement for vehicles and Movement for non-motorists.
   2. Suggestions:
      - Shorten the name to something like Non-Motorist Movement or Non-Motorist Status.

K. NM3. Non-Motorist Distraction
   1. Discussion: This element is intentionally short and simple because this data can be hard to collect.
   2. Suggestions: No suggestions.

L. NM4. Non-Motorist Contributing Circumstance(s)
   1. Discussion: FARS recently added "Non-Motorist Road Rage" as an attribute.
   2. Suggestions:
      - Add the new FARS attribute **Non-Motorist Road Rage**.

M. NM5. Non-Motorist At Intersection

1. Discussion: The draft MMUCC Sixth split the previous data element *Non-Motorist Location at Time of Crash* from MMUCC 5 into three separate elements to simplify the collection of information. This is the first of the three split out elements.
2. Suggestions: No suggestions.

N. NM6. Non-Motorist in Crosswalk
1. Discussion: This is the second of the three elements split out from Non-Motorist Location at Time of Crash.
2. Suggestions: No suggestions.

O. NM7. Non-Motorist Specific Location
1. Discussion: This is the third of the three elements split out from Non-Motorist Location at Time of Crash.
2. Suggestions: No suggestions.

P. NM8. Non-Motorist Safety Equipment
1. Discussion: This element has been confusing in the past and there have been data quality challenges. The draft MMUCC Sixth has adopted the FARS/CRSS method of collecting this data. Subfields were created to simplify the collection to **Yes**, **No**, or **Unknown** options. The Non-Motorist elements are collected for each involved non-motorist.
2. Suggestions: No suggestions.

Q. NM9. Non-Motorist Device Type
1. Discussion: The word "Scooter" can mean many different things. MMUCC addresses this in the definition of **Scooter (Standing or Seated)** and the element's Alignment Rules. A motor scooter is a motor vehicle with classification determined by engine size. If the device has a VIN, it can be classified as a **2-Wheeled Motorcycle** or a **Moped**. A motorized unicycle may be coded as a **Self-Balancing Board**. MN has a few different unit types that cover non-motorists, so they would add some validation rules (e.g., if the unit type is cyclist, the Non-Motorist Device Type should be a cycle).
2. Suggestions: No suggestions.

R. NM10. Non-Motorist Traffic Control Device
1. Discussion: This is a new data element.
2. Suggestions: No suggestions.

III. Review Chapter 11 Designing User Centered Crash Reporting Systems

A. Discussion:
1. Comments from Minnesota: MN's traffic crash reporting system is based on the principles laid out in this chapter. Dr. Morris and her team at the U of MN were instrumental in the design of MNCrash, which has been a massive improvement from the previous paper crash report/data entry system. Crash reporting is much more user friendly, more accurate, and the timeliness of crash report submission has vastly improved. We are very happy with the methods set forth by Dr. Morris and her team (and laid out in this chapter). I also wanted mention something to think about when developing your crash reporting system. When MNCrash was developed, one consideration was connectivity. We do have a 'quick capture' which is a great feature that allows officers to capture minimal data at the scene of the crash without connectivity, and then complete the rest of the report at a later time. However, it was decided that both a desktop and a web application would be developed. In addition, both a Wizard and a dynamic

web-based "form" were offered. This actually ended up consuming too many resources (time and money, essentially) to maintain in the long term, given our desire to make continual improvements to the system. Every change was essentially 4 times the effort/money/time. We ended up discontinuing the Wizard. We also discussed discontinuing the desktop application, as connectivity isn't as much of a concern, but it has become integral to our State Patrol's processes, so we continue to maintain the web and desktop applications. So, in summary, the user-centered design discussed in this chapter has proved successful in our state, and your state should also consider future maintenance and development and access to funding and human resources when deciding how best to develop your system.

2. Comments from Tennessee: I like the focus on user-centered design. Having this section to remind people it's not just about data collection but about the Law Enforcement Officer and designing the system to make the collection of data by officers easier.
3. Comments from Iowa: This chapter is a great addition to MMUCC.
4. System design upgrades may be eligible under the SECDC grant (opportunity number 693JJ92023): https://www.grants.gov/web/grants/view-opportunity.html?oppId=345645

B. Suggestions:

1. Figure 36, Under **Document Crash** add another box for **Crash Conditions** to capture things like Atmospheric Conditions and Work Zone.

IV. Review Appendix C Edit Rules

A. Discussion:

1. There are error rules and warning rules. Error rules include **must** and warning rules include **should**. Error rules cannot be overridden and must be fixed. Warning rules can be overridden if they accurately describe the crash circumstances.
2. MMUCC should be the minimum required. The warning rules are helpful, but are they necessary? The long list is confusing, so consider separating warning rules into their own table so they are not lumped in with the error rules. Also consider if it's possible to organize the rules into categories and add another column to the table to capture the data level of the elements referenced.
3. In MN, they built some edit checks to capture trafficway vs. non-trafficway crashes. If the critical event occurs on the trafficway, even if the vehicle then leaves the trafficway, it's a trafficway crash.
4. ER.053: tickets aren't always issued, so this should be a warning rule.
5. WR.005 and WR.009: child and day care vans are not always school bus-related, but this is a warning rule so they can be overridden if necessary.
6. WR.018: TN has an option for "test requested, not given" but MMUCC does not have this as an attribute, so it's not included here. Rules can be customized by States.

B. Suggestions:

1. Separate the warning rules from the error rules.
2. Group the error rules into logical categories and add a column to capture the data level relevant to the elements included in the rule.
3. Change ER.053 from an error rule to a warning rule.

V. Close meeting – ended at 3:00 PM Eastern

A. This concludes the tasks assigned to this subcommittee. Joanna will cancel future meetings if there are no agenda items.
B. The subcommittee is encouraged to submit any additional suggestions about anything in MMUCC 6 to Joanna.