# NEMSIS Internal Advisory Board

December Meeting Minutes
Wednesday, December 02, 2020
10:00 – 12:00 PM MST

I. Welcome
II. Topics: Areas of Concern Expressed by Board Members and Critical Industry Issues
    a. Data Interoperability/Data Exchange (Recommendations for External Advisory Board)
        i. NEMSIS currently exchanges data in a closed circuit with use of XML.
            1. NEMSIS provides mapping to allow the data to be exchanged outside of NEMSIS and into NEMSIS.
            2. The new standard for exchange is HL7 FHIR largely due to the passage of the Cures Act requiring its use.
            3. NEMSIS currently has no templates for the sharing of v3.5 data but has plans to start exchanging data by the end of the first quarter 2021.
        ii. What standard to use for 2021– start directly with FHIR?
            1. HL7 is a language of healthcare that covers all boundaries.
            2. FHIR allows for quick connections and exchanges of information. It requires effort to structure the information that is in the exchange.
            3. Board felt that HL7 FHIR is the move to take. It will require resources and funding.
            4. Go directly to FHIR but allow and outline the time to develop new software and the cost associated with the direct move.
                a. Can we provide a cost sheet of moving to FHIR in a single step versus moving incrementally?
                b. We need to have the tools to make sure everyone understands FHIR. Consider information in the data dictionary highlighting the FHIR elements.
                c. We need to know the cost for creating the templates and the mapping for NEMSIS and HL7 FHIR. This will include the development of an implementation guide for v3.5 that indicates how PCR elements can move from the ambulance to a hospital.
                    i. The TAC has had to develop this on its own and then work with hospitals and clinics to implement them.
                    ii. Now it is required. There is middleware (software to connect on the front and the back) that electronic health records can connect to and that allows for the connection to the rest of the healthcare system. The potential use of middleware would allow for opportunities to scale.

d. Would providers see anything different in the software they use to input the data?
    i. If we keep with v3.5 implementation – they would see no difference.
e. NEMSIS would be a second or third adopter but would need to move this way to get CMS dollars.
    i. Federal policy makers are moving in this direction.
    ii. It is already functional in a lot of different environments.
    iii. EMS data is not well recognized or utilized in terms of healthcare data however, but is getting a lot more attention.
f. COVID has taught us that EMS can adapt and change quickly – go straight to FHIR.
    i. COVID is also pushing EMS to do more population health and public safety.
    ii. What happens if you are an EMS provider that is exposed and has to quarantine? EMS is not able to separate the operations from the patient level care.
g. Timeline to move to FHIR is lengthy. NEMSIS will not need to get out and do this immediately; thinking about 2-3 years ahead.
    i. Change in administration will also dictate this. Hospitals and clinics likely will be priority, giving EMS time to move in the same direction or tilt healthcare to a different direction that EMS leads.
    ii. Is what we are collecting now what we should be collecting for the future?
h. Are hospital EHR systems willing to exchange with us?
    i. This still needs to be addressed.
    ii. EMS will need to be able to be incorporated– some work has started with the VA that EMS could take advantage of.
    iii. There may be some middleware opportunities to connect to them.
        1. Need to figure out what the information should look like and how quickly it moves back and forth.
    iv. Each determines what they want to accept and submit (exchange externally).
i. Connecting with them would require some retooling of other items that are already in process in NEMSIS. Will need to consider this if opting to jump in fully.
    i. Some states are creating their own exchanges and want NEMSIS to participate.

j. Board Members overall are thinking NEMSIS should jump in fully to HL7 FHIR.
    i. Need more information to inform the strategy.
k. This funding year, look at creating an implementation guide for v3.5 with FHIR.

iii. ROI for creating a FHIR backbone for NEMSIS data transmission and exchange (Interoperability).
1. There is criticism that the whole of NEMSIS is not HL7.
    a. NEMSIS sits between healthcare and public safety – not completely either.
2. Have to be able to pay for the services EMS provides – we do have to integrate with the rest of healthcare and make sure we can be reimbursed for services.
    a. EMS will be lost in the picture otherwise.
3. Every current EMS vendor would be moving to a FHIR HL7 standard instead of the NEMSIS standard.
    a. Impact to vendors and states – this was a similar issue with moving from v2 to v3.
        i. Community may not be willing to accept this without grants and funding.
    b. What is the sustainability of the NEMSIS standard over time?
        i. Consider when it becomes inefficient with having to move to FHIR.
        ii. NEMSIS will gain a couple of years in efficiencies by moving to a cloud environment.
    c. This will be a win because it will allow for better benchmarking. The NEMSIS dataset is the current way to benchmark.
    d. Whatever we can do to make interoperability work to get the feedback loop open then yes – need the outcome data that help agencies improve.
        i. Not aligning the datasets make it more difficult to communicate and get feedback/outcome data.
    e. The faster we can align with hospitals and clinics – the more likely we can be eligible to get public funding.
    f. Need to identify public funding sources

iv. Are there groups (individuals) NEMSIS should contact for potential contracting?
1. *This question was not discussed.*

b. Community Paramedicine/Mobile Integrated Healthcare
i. The NEMSIS standard is tough for air medical to use – capture 50% of their calls but some required elements do not match up.
1. They would like other elements that NEMSIS does not support.

ii. NEMSIS wants to be able to collect elements to cover community paramedicine.
iii. How do we extend NEMSIS to collect all aspects of EMS (ground, air, critical care, community paramedicine)?
    1. Do we have a module for each? Do we maintain them? Do we collect the data nationally?
iv. What's the best way to move forward?
    1. NFIRS is also battling with this.
    2. What is a NEMSIS incident? We need to define this to know how to move forward.
        a. If NEMSIS and NFIRS are both collecting the information – should they be talking to each other to reduce redundancies?
            i. How do you then do national analysis?
        b. Is NEMSIS all-encompassing or just a certain area of EMS (911 ground)?
            i. If all encompassing, we need to collect everything from an EMS call from start to end.
            ii. Or we need better systems within the whole EMS system that talk to each other.
    3. We have to adjust and adapt.
        a. A data system might not be that fluid unless we can adjust the elements.
        b. Need to have a standard that is adaptable.
    4. All the separate systems in EMS are collecting data today.
        a. We cannot leverage them because they are not all on the same system/standard.
        b. Modules would be helpful to support all aspects of EMS.
            i. They would allow agencies to better communicate with states.
            ii. There could be specific modules for specific calls.
                1. Crews have pushback on having to document things that are not relevant to a specific call.
            iii. The modules could determine elements that go with specific calls. This would help reduce documenting elements that are not relevant to that call.
        c. Look at other national standards and systems to see what they are doing.
        d. We put blinders on by not including the other areas.
            i. By not including the other areas, NEMSIS could diminish its importance.
            ii. Try to incorporate these other aspects into the data standard.
                1. Including the other areas shows a chain of care – from start (prehospital) to discharge/rehab (hospital/clinics).
                2. New leadership in EMS may be expecting this.

3. We want to get to outcomes and not just focus on process.
    a. As we get closer to outcomes, need to focus less on process elements. Need connectivity that provides us outcome data and less documentation. The result would be less to manage at agency and state levels. Make it easier and only collect information that makes a difference.

v. NEMSIS needs to adapt to what is being requested by the industry to avoid losing value at a national level.
vi. Impact of ET3 on CP/MIH.
vii. ROI for NEMSIS data standard but data not aggregated or sent elsewhere. Option #2 is expanding the NEMSIS standard to collect all the CP/MIH data.

c. National Data Standard
    i. Update schedule to versioning (discussion on 10/28 v3 call).
    ii. There are not defined definitions for everything in NEMSIS. This was initially on purpose to allow states to have some flexibility.
        1. This does not allow us to compare “apples to apples” across states.
    iii. How can we get more states to stay "apples to apples" and not change definitions?
        1. Work on the definitions within the data dictionary to remove ambiguity that leads to states using elements differently.
        2. Data dictionary and element definitions are helpful.
        3. Definitions of the values would be helpful, word descriptions for each.
            a. Allows all vendors to agree across platforms.
            b. NASEMSO did some work with data managers to provide more details to certain data elements.
                i. This method is not sustainable.
        4. Would rather have fewer data elements that are well defined than lots of elements that do not have clear definitions.
        5. Need to know the cost on the TAC of each element – creation to it being in the software.
        6. Need to get definitions into the textbooks that clinicians use in school.
        7. How do the definitions relate to maximizing claims and getting the most money back?
            a. From legal standpoint, the definition of “emergency” is a big one.
                i. Many definitions come from Medicare definitions for billing.
        8. Do we need to be on a standard national definition set?
            a. Other groups have different definitions for the same thing.
            b. NEMSIS tries to adhere to billing definitions and ICD-10 codes.

9. TAC needs to provide additional instruction on definitions.

iv. The question of data necessity (are we collecting too much data we are not using.)

1. How do we evaluate the necessity of individual data elements?
    a. Think about who else needs to know that information.
    b. Would be helpful to know which are getting used for which purposes – billing, research, etc.
    c. Track how often elements are being used/filled out. This would also be helpful for elements that are not mandatory.
    d. Some elements have been used as placeholders and carrots to get people to use them (if you build it, they will come).
    e. What information can we get from the crews.
        i. Some elements are a nice idea, but the crews are not going to have the information
        ii. Input elements versus elements that we expect to get back from someone else.
            1. Separate out these elements and help crews see which ones they would possibly enter.
    f. Cannot forget that NEMSIS was initially a tool for local EMS.
2. Are there other avenues we should evaluate to improve data quality to ensure we can use apple to apple comparisons?

III. Action Items

a. Can we provide a cost sheet for moving to FHIR in one step versus moving incrementally?
b. We need to have the tools to make sure everyone understands FHIR. Consider information in the data dictionary highlighting the FHIR elements.
c. Create an implementation guide for v3.5 with FHIR.
d. Define a NEMSIS incident.
e. Consider EMS modules within NEMSIS to capture data from all of segments EMS.
f. Provide additional instruction on element and value definitions.
g. Consider ways to determine elements that are valuable.

IV. Next Meeting: TBD

V. Adjourn

Attendance:

Brooke Burton
Eric Chaney
Jennifer Correa
Remle Crowe
Atim Effiong
Julianne Ehlers
Chris Handley

Nathan Jung
BJ Jungmann
N Clay Mann
Jay Martin
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