PROMOTING INNOVATION IN EMERGENCY MEDICAL SERVICES: NATIONAL STEERING COMMITTEE MEETING

WASHINGTON, D.C.

SEPTEMBER 21, 2015

PROCEEDINGS REPORT

PLANNING COMMITTEE

U.S. National Highway Traffic Safety Administration
Bureau of Emergency Medical Services

Noah Smith, MPH, EMT

U.S. Department of Health & Human Services
Office of the Assistant Secretary for Preparedness and Response

Kevin Horahan, JD, MPH, NRP

U.S. Department of Homeland Security

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James Dunford, MD
Christopher Kahn, MD, MPH

New York Mobile Integrated Healthcare Association

&

The Henry J. Kaiser Family Foundation

AGENDA

September 21, 2015

Kaiser Family Foundation, Barbara Jordan Conference Center, 1330 G St. NW, Washington, D.C. 20005

Time	Agenda Item
8:30 AM – 9:00 AM	Registration
9:00 AM – 9:20 AM	Welcome & Opening Remarks **Noah Smith, MPH, EMT** – Office of EMS, National Highway Traffic Safety Administration **Raymond Mollers** – Department of Homeland Security **Kevin Horahan** – U.S. Department of Health and Human Services
9:20 AM–9:45 AM	Promoting Innovation in EMS: Initial Results & Impressions **Jim Dunford**, MD - City of San Diego EMS Medical Director **Kevin G. Munjal**, MD, MPH – Assoc Medical Director of Prehospital Care, Mount Sinai Health System
	Steering Committee Roundtable Sessions
9:45 AM–10:30AM	**Data & Telecommunication**
10:30AM-10:45AM	Break
10:45AM-11:30AM	**Finance / Sustainability**
11:30AM-12:30PM	**Legal & Regulatory**
12:30PM-1:00PM	LUNCH (provided)
1:00PM-1:45PM	**Education**
1:45PM-2:30PM	**Interdisciplinary Collaboration**
2:30PM-2:45PM	Break
2:45PM-3:30PM	**Regional Coordination within EMS**
3:30PM-4:15PM	**Medical Direction**
4:15 PM – 5:00 PM	Summary & Next Steps
5:00 PM – 7:30 PM	Reception

EXECUTIVE SUMMARY

The Mount Sinai Health System (MSHS) and the University of California, San Diego (UCSD) Health System together convened a National Steering Committee meeting as part of the Promoting Innovation in Emergency Medical Services (PIE) project on September 21, 2015 at the Henry J. Kaiser Family Foundation, Barbara Jordan Conference Center in Washington, D.C. This meeting was the centerpiece of the 2-year project, made possible through a Cooperative Agreement awarded by the co-sponsoring Federal Agencies: The National Highway Traffic Safety Administration (NHTSA); U. S. Department of Homeland Security (DHS); U. S. Department of Health and Human Services (HHS). The purpose of this meeting was to convene the National Steering Committee and bring together traditional and non-traditional stakeholders in Emergency Medical Services (EMS) to examine the draft recommendations proposed for inclusion in the National Framework Document to help local communities overcome barriers to EMS innovation.

The National meeting was designed to be a working session during which all participants could discuss and provide feedback on the proposed recommendations. Over 100 people participated in the meeting, either in-person or via the webcast. The participants included physicians, home health representatives, city government representatives, state representatives, Federal agency representatives, legal and policy experts, commercial entrepreneurs in data and technology, as well as representatives from volunteer, commercial, fire and hospital-based-EMS agencies. See Appendix A for Steering Committee members and represented organizations.

For some time, there has been need for real and practical solutions to overcome hindrances to innovation in EMS. While many other industries have been able to incorporate new technologies and system designs, adapt to new payment models, create and diversify service offerings, EMS has had relatively little success in adapting to external forces or innovating to keep pace. The greatest obstacles to innovation were largely identified leading up to this meeting through a series of interviews with members of the project's National Steering Committee, public surveys on the project website http://EMSinnovations.org, and the regional meetings. The East and West Coast regional meetings in May, 2015 established a picture of the current state of EMS in New York and California, respectively, and described several recent innovative initiatives that have been conducted around those states, as well as the obstructions those programs confronted.

Through the interviews, regional meetings, and focus groups, the committee identified 7 over-arching categories of barriers. Although many of the major challenges are inter-related, the recommendations could be grouped into these 7 major categories: Legal and Regulatory; Finance and Sustainability; Data & Telecommunication; Education; Interdisciplinary Collaboration; and Regional Coordination within EMS. Prior to the national meeting, the steering committee organized itself into work groups corresponding to the 7 areas, and crafted

draft recommendations to help overcome those challenges using the input available from the interviews, surveys, and regional meetings. These were distributed in advance of the meeting to all participants.

The national steering committee meeting was structured as a working meeting with all participants able to contribute to the roundtable discussion. A steering committee member from each workgroup presented a brief overview of the issue including the challenges identified and contextualizing the proposed recommendations. This was followed by a vote on each recommendation in that category using an audience response system. The limited discussion time was then prioritized to examine those recommendations with the most disagreement or requests for modification.

The 52 drafted recommendations can be found in the subsequent sections as they were presented during each session at the meeting, along with the vote-in-support percentages and a brief summary of the open forum discussion during that session. The prioritization exercises conducted during each themed session allowed for a focused discussion on 32 of the draft recommendations during the in person meeting.

The most strongly supported recommendations for each of the seven categories were:
Data & Telecommunications: "EMS documentation should transition to Patient-based reporting, rather than Incident-based reporting."
Finance & Sustainability: "EMS agencies and their partners should engage State Medicaid leadership to seek reimbursement for innovative care models through the Medicaid Waiver process."
Legal and Regulatory: "States should work with insurance regulators to create policies that are favorable toward innovation in EMS. For example, health plans might be required to cover EMS assessment and treatment regardless of whether the patient is transported."
Education: Initial and ongoing training for prehospital providers should include opportunities for interdisciplinary team-based experiences with other types of patient care providers along the entire illness/injury-to-discharge/rehabilitation continuum."
Interdisciplinary collaboration: Community Health Stakeholders including, but not limited to, EMS, Home Health, and Primary Care groups should seek to improve electronic sharing of information."
Regional EMS Coordination: "Working with field EMS providers, federal partners, and health care stakeholders, the Centers for Medicare and Medicaid Services (CMS) should incentivize the ongoing development of quality and performance metrics to facilitate better care coordination."
Medical Oversight and Direction: "Evidence-based consensus guidelines and best practices should be incorporated into EMS system protocols, so as to establish minimum acceptable standards of care."

As a part of this iterative process, it is no accident that some new recommendations were generated at this meeting. These comments and proposals can be found in the 'Other Suggestions' section at the end of each category.

Before closing the meeting, representatives from the Federal co-sponsoring agencies gave closing statements and reminded attendees that we are only half way through the 2-year project and some of the most useful final recommendations will be those that focus at barriers at the local level. Innovation is happening despite significant obstacles and in addition to recommendations to eliminate barriers on the national stage, the document will also be useful for stakeholders at the local level that are eager to begin innovative new projects.

The feedback from this National Steering Committee meeting will be added to the information collected at all of the previous stages of the project and will be reviewed during our steering committee working group discussions. During the second year of the project the recommendations will be significantly revised. It is likely that many from this first round will be eliminated, others will be combined, and others reorganized or retargeted to better achieve the overall goal. The hope is that at the end of the project, we will have a manageable number of well-written, highly vetted, and exceptionally useful recommendations that EMS and local health community members can implement to enable innovation to thrive at the local level.

Session 1: Data & Telecommunication

The recommendations in this section were generated to address the issues that confront data collection and telecommunication in the EMS system. These include inconsistency in data collection on local state and federal level, lack of communication between hospital and EMS, EMS having access to data, and the way data is collected. The following recommendations were discussed and voted on:

Recommendation 1: The Office of the National Coordinator for Health Information Technology should establish a Meaningful Use-like incentive for the implementation of Electronic Medical Records for EMS.

Vote: **Support: 80** Support with Modification: 20 Do Not Support: 0

Discussion:

- One of the problems is that EMS is not motivated or incentivized to use collected data.
- It was suggested that if Meaningful Use Stage 3 recommendation gets pushed to 2017 it could become a possible opportunity for incentivizing the use of EMS data to be added.

Recommendation 2: Local Governments should facilitate the building of a Knowledge Information Project / Community Information Exchange to integrate community and social services. Information sharing between providers is crucial to the quality of medical care.

Vote: Support: 25 **Support with Modification: 50** Do Not Support: 25

Discussion:

- EMS can collect social data since they get to visit the patients in the home. This is important since health outcomes are often connected to social and economic factors.
- Opposition was raised to this recommendation on grounds of federally qualified healthcare clinics or certified patient centered homes being the entities that could accomplish this objective.
- Another problem with this recommendation was that local governments might not be able to take responsibility for this suggestion, since it might not be possible for them to collect this data and keep it up to date. It was suggested that insurance entities facilitating this might be a better option, since they are more motivated to collect this data and keep it up to date. Insurance entities facilitating social data might also create fewer issues with patient rights (HIPAA).
- Another objection raised to this recommendation was that a lot of organizations might not have EMS providers trained to collect this data and the federal government should work on developing standards for such information being collected.

- It was suggested that this recommendation should be shifted to be EMS centric and not too broad.

Recommendation 3: State Governments / Health departments should require reporting on performance measures and enforcement of interoperability standards.

Vote: Support: 25 **Support with Modification: 50** Do Not Support: 25

Discussion:

- Today these standards are inconsistent and the value and quality presented is often unclear.
- It was suggested that it should be specified who is going to be reporting specifically. However, it was contested that not naming specific projects and keeping the recommendation broader makes it more widely applicable.
- Concerns were raised about where the collected data is going and how it will be used.
- It was pointed out that there is a necessity of an endorsed EMS measure saying what the quality standard is.
- It was suggested that the recommendation should be turned back towards the EMS community not on the national level, but rather recognize that there must be a big push at the local level for performance evaluation and when new incentives are to be implemented they should be based on performance outcomes and evaluations of data to determine if the program worked.
- In order for this reporting to be possible it is necessary to educate EMS providers about performance measures and how to gage what they are doing.

Recommendation 4: State Health Information Exchanges should include one or more EMS representatives on their Board.

Vote: **Support: 100** Support with Modification: 0 Do Not Support: 0

Discussion:

- The role of such a representative would be to show EMS value in the system and provide incentives for data sharing.

Recommendation 5: EMS documentation should transition to Patient-based reporting, rather than Incident-based reporting.

Vote: **Support: 95** Support with Modification: 5 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail

Recommendation 6: As not all areas of the United States provide the infrastructure for implementing new, innovative telemedicine initiatives, local and state governments in such areas should update relevant infrastructure elements to facilitate and encourage implementation of new technological innovations. Infrastructure elements might include, but are not limited to, areas such as broadband internet, Wi-Fi, and telecommunications upgrades. Budgeting for system upgrades to support telemedicine in EMS growth in both urban and rural settings will have challenges.

Vote: Support: 35 **Support with Modification: 50** Do Not Support: 15

Discussion:

- The focus should be on telemedicine and stroke care, harnessing the technology and using it to our advantage.
- Opposition was raised that in rural parts it is problematic to push for telemedicine rather that higher education, transmission of data through telemedicine might be problematic and it might be better to increase education to make decisions rather than implementing telemedicine.
- It was pointed out that the having data sources available can help paramedics to make better decision on scene, so creating an infrastructure for the information to flow and be available was supported.
- It was suggested to add First Net to this recommendation specifically and it was also suggested that telemedicine should be removed from this recommendation.
- It was suggested that the recommendation is too broad to be in this document and that it should include private-public partnership, not be viewed as a government program only.

Other suggestions:

- Consider adding recommendation concerned with EMS data sharing and patient and provide safety
- Once the data is collected in order for it to be meaningful, the data has to be in a usable format for the user

Session 2: Finance / Sustainability

Recommendation in this section were generated to address issues most often stemming from the lack of separation of transport from EMS care, which leads to a misalignment of incentives.

Measurement and valuation improvement could create the necessary incentives and provide the critical information for pilots and getting grants. Additional issues include lack of business expertise and entrepreneurial environment and pace of change happening at different speeds in different regions. The following recommendation were discussed and voted on:

Recommendation 1: CMS and other payers are encouraged to credential providers based upon their demonstrated competencies rather than simply upon licensure and credentialing. In other words, for medical procedures that may be competently performed by multiple licensees, any of the licensees should be eligible to perform the service, be that in a fee-for-service arrangement or a value-based arrangement.

Vote: Support: 40 **Support with Modification: 50** Do Not Support: 10

Discussion:

- Payers should be reimbursed based on competencies rather than licenture.
- It was suggested that this recommendation could be incorporated into other recommendations focused on outcome value rather than ED transport.

Recommendation 2: There should be a federal advisory committee (as defined by the Federal Advisory Committee Act (FACA) of Title 5 United States Code (5 U.S.C.) Appendix 2) comprising EMS stakeholders, broadly defined, to both create a 5, 10, and 20 year vision for what EMS should look like and a strategy for realizing the vision. As part of its charge, the committee should both identify potential obstacles to the realization of its vision and develop ways to overcome these obstacles. The EMS federal advisory committee would report to USDOT, NHTSA, DHHS?

Vote: **Support: 39** Support with Modification: 32 Do Not Support: 29

Discussion:

- Concerns were raised that a committee similar in function to the one described already exists – NEMSAC, which assigns task force.

Recommendation 2A: Each community should develop a public-private partnership that brings local stakeholders in healthcare and social services together to consider and measure the positive benefits of innovative programs (in EMS or other areas) and develop funding agreements to transfer societal savings and benefits back to the entity that bears the expense.

Vote: **Support: 53** Support with Modification: 33 Do Not Support: 13

Discussion:

- The focus should be not only downstream savings, but societal savings of innovations as well.
- It was suggested that instead of "develop a" the recommendation should say "develop partnerships with NGOs, hospital, behavioral health institutions…"
- It was pointed out that transferring benefits as described in the recommendation might be problematic since it is often difficult to determine and quantify the benefits.
- It should be established who is responsible for the measures in the recommendation
- A concern was raised that the recommendation is too flowery to be effective.

Recommendation 3: Multi-payer engagement around 9-1-1 and integrating care coordination with EMS role.

Vote: Support: 48 **Support with Modification: 52** Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail

Recommendation 4: Payers should reimburse EMS for the performance of services for which billing codes already exist and which the payer is currently reimbursing other provider groups for.

Vote: **Support: 61** Support with Modification: 30 Do Not Support: 9

Discussion:

- It was suggested that the recommendation should be connected or merged to recommendation 1.

Recommendation 5: State Medicaid Reimbursement Reform committees should include EMS representation.

Vote: **Support: 100** Support with Modification: 0 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail

Recommendation 5A: EMS agencies and their partners should engage State Medicaid leadership to seek reimbursement for innovative care models through the Medicaid Waiver process.

Vote: **Support: 95** Support with Modification: 5 Do Not Support: 0

Discussion:

- The main purpose of this recommendation is accelerating payments.
- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 6: Measuring and understanding costs in an EMS system is an important fundamental step in having the ability to innovate.

Vote: **Support: 85** Support with Modification: 15 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 7: EMS entities need to acquire measurement and analytic skills to prove outcomes for individual patients and across populations, including patient satisfaction and cost effectiveness.

Vote: **Support: 75** Support with Modification: 25 Do Not Support: 0

Discussion:

- It was suggested that the recommendation is similar to 6 and can combined with it to make the document simpler.
- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 8: Payers should reimburse EMS providers for arranging, coordinating, and/or participating in telemedicine enhanced clinical care in the field, independent of transportation.

Vote: **Support: 44** **Support with Modification: 44** Do Not Support: 12

Discussion:

- It was suggested that the recommendation is similar to 6 and can combined with it to make the document simpler and fit under decoupling transport from care.
- This recommendation would provide a healthcare delivery mechanism for communities who don`t have access to physician service,

- Concerns were raised that the recommendation was too specific, particularly for EMS organizations partnering with other parties that have opportunities for payments
- It was suggested that the current telemedicine technology is not yet what it needs to be for telemedicine to work effectively

Other suggestions:

- It was suggested that all recommendation concerned with separating transport from treatments should be put together as subrecommendations of one large recommendations.

A) The American Ambulance Association and the National Association of EMTs should approach CMS and America's Health Insurance Plans (AHIP) to establish a joint task force to design and implement anti-fraud and abuse initiatives.

- Undertaking this recommendation with serve two main goals. First, to communicate the industry's willingness to work collaboratively with CMS and AHIP to combat the fraud and abuse issues in the ambulance industry. Second, working together, the ambulance industry, CMS and AHIP may be able to determine economic models for testing that alleviates the perverse incentive for payment based on transport, to a model that rewards quality service and program integrity.

Session 3: Legal & Regulatory

The goal of the Legal & Regulatory recommendations is allowing legal programs that create flexibility while enhancing patient safety and dealing with authorized scope of practice. The recommendations also try to address how standards can be integrated into structure. The following recommendation were discussed and voted on:

Recommendation 1: With regards to EMS scope of practice, states are encouraged to create a legislative and regulatory environment that enables early adoption of evidence-based best practices and promotes innovative practices in EMS.

Vote: **Support: 69** Support with Modification: 31 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 2: States should work with insurance regulators to create policies that are favorable toward innovation in EMS. For example, health plans might be required to cover EMS assessment and treatment regardless of whether the patient is transported.

Vote: **Support: 52** Support with Modification: 42 Do Not Support: 6

Discussion:

- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 3: States should work to establish a favorable legal and regulatory climate to allow for alternate transport and alternate destinations for care under circumstances where the usual transport and destinations are overwhelmed or unavailable. Provision of care services at alternative destinations should occur independent of practice settings and independent of the setting of care.

Vote: Support: 33 **Support with Modification: 67** Do Not Support: 0

Discussion:

- The main aim of this recommendation is to provide authorization for providing medical care in various settings.
- It was suggested that the actors for this recommendation should be more clearly defined as collaboration of smaller regional agencies rather than state committees.

- It was suggested that the recommendation should end at "circumstances" deleting the requirement of destination being overwhelmed or unavailable.
- A concern was raised that the recommendation might be too specific especially since the main goal is to unleash innovation rather than micromanage.

Recommendation 4: States should provide their state agencies regulating EMS practice with sufficient authority to define practitioner levels and service lines in a manner that will facilitate the provision of high quality, cost effective medical care via innovative paramedicine services to their communities.

Vote: **Support: 50** Support with Modification: 30 Do Not Support: 20

Discussion:

- It should be made clear in the recommendation that the state should set the floor and the community the ceiling for innovation.
- Concerns were raised about defining different levels of EMS personnel suggesting that the current state is preferable.

Recommendation 5: Model Legislation at the State level should consider including language to adopt nationally recognized standards for EMS. Nationally recognized standards might include, but not be limited to, definitions of levels of care and scope of practice.

Vote: Support: 33 **Support with Modification: 43** Do Not Support: 23

Discussion:

- The scope of practice should be the minimum, this is necessary since there is no current consensus nation-wide on what nationally recognized standards are.
- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 6: States should empower their regulators with the appropriate flexibility to investigate promising innovations. This authority should include: the ability to design and appropriately incentivize the temporary implementation of pilot programs and/or new payment practices; the ability to evaluate a given pilot project and determine when it has provided sufficient evidence of effectiveness; the ability to propose statutes and regulations that would allow for the widespread adoption and funding of proven innovations. States should also create mechanisms to allow billing and reimbursement under both state payment systems (such as Medicaid) and through the regulation of healthcare insurance providers.

Vote: Support: 33 **Support with Modification: 50** Do Not Support: 17

Discussion:

- It was suggested that this recommendation is a more detailed version of recommendation 1 and should merged.
- Concerns were raised that regulators might not help innovation, since they may lead to barriers making innovation even more difficult, rather than making environment more conducive to innovation.
- It was noted that model provisions are necessary for many of the recommendations.

Recommendation 6a: In order to assure public safety, a process to examine new pilot projects should be created by State governments. This process might resemble the well-established Institutional Review Board (IRB) or Independent Ethics Committee (IEC) systems, that are formally designated to approve, monitor and review new projects.

Vote: Support: 31 Support with Modification: 28 **Do Not Support: 41**

Discussion:

- Objection were raised that a similar idea was tried in California, but it did not work effectively since too many people were involved; safety committees would be a better choice.
- It was pointed out that IRB presiding over innovation could stifling to innovations due to state bureaucracy.
- The main aim of the recommendation was concern for patient safety and ethically problematic practices, but it was argued that most projects are not experimenting on patients but just modifying operations to improve outcomes.

Recommendation 7: States should create an EMS Regulatory Board that can adopt definitions and practices that make innovation easier and would oversee EMS similar to how State Medical Boards oversee physicians.

Vote: Support: 30 Support with Modification: 27 **Do Not Support: 43**

Discussion:

- Objections were raised that the recommendation is too specific about the model to be used, which could inhibit innovation, especially with a stakeholder group that doesn't reflect the direction of the innovation.
- It was suggested that there is significant overlap between recommendations 1,4,6,7, and maybe 6a, and combining them should considered.

Other suggestions:

- EMTALA issues that lead to waiting for patient hand-off for too long and concerns about who "owns" the patient at hospital should also be addressed
- Licensure across state lines - establishing portability
- Other issues that are relevant - certificates of need, information privacy and EMS being recognized by states as more than just a limited 911 case response

Session 4: Education

It was stressed that many other countries (such as UK, Australia or Canada) have a more unified education system for EMS providers and the EMS education needs to be reformed, possibly by a greater degree of education, standardization and filling in gaps in education. The following recommendation were discussed and voted on:

Recommendation 1: EMS educational institutions should 'raise the bar' by developing a class of 'Professional EMS Educators' through fellowships in EMS education and mentoring programs.

Vote: **Support: 71** Support with Modification: 29 Do Not Support: 0

Discussion:

- It was suggested that this recommendation ought to be combined with 5.

Recommendation 2: EMS Education should use evidence-based education (EBE) as an approach to all aspects of EMS education—from policy-making to classroom practice—where the methods used are based on significant and reliable evidence derived from experiments. This method shares with evidence-based medicine the aim to apply the best available evidence from the scientific method to educational decision making.

Vote: **Support: 81** Support with Modification: 19 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 3: EMS agencies, EMS educational facilities, and State and Federal officials should fund research and develop programs to encourage EMS providers to obtain academic degrees.

Vote: **Support: 65** Support with Modification: 23 Do Not Support: 13

Discussion:

- It was suggested that the recommendation could be combined with 4 and 5.
- Objections were raised about the rue need for more education. Even though it might be great for the individual there might not be enough evidence to say that it necessarily improves the system and patient care, for instance, a lot can be done by EMTs rather than paramedics. Therefore, it is important for the recommendation to be evidence based by finding a study that supports better patient care from better education degree.

- It was argued in support of this recommendation that EMS has a large role in public safety and healthcare. To improve its ability to respond in terms of better case management, patient assessment, response to behavioral and social issues skill sets need to be expanded by more education.
- It was pointed out that currently EMS is so valuable due to the cost for quality in provides, but education might dramatically change the cost, which could result in the decrease of value.
- It was also pointed out that a large part of the system is fire-based and implementing the recommendation might be problematic.
- It was suggested that EMS leaders, not only providers, should also obtain academic degrees.
- Creation of scholarship programs encouraging paramedics with higher degree to work in areas where they would not otherwise was suggested.
- Large part of the discussion applies to recommendation 5 as well.

Recommendation 4: A federal funding stream should be made available to develop multiple national curricula to better prepare and integrate EMS, pre-hospital, out-of-hospital, and paramedicine care into the rest of the healthcare system.

Vote: **Support: 43** Support with Modification: 33 Do Not Support: 23

Discussion:

- It was suggested that this recommendation should be combined with 3 since both aimed at developing curriculum for further EMS education.
- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 5: By the year 2025 EMS agencies, leadership, management and educators should establish the requirement of a degree for paramedics and salaries should be commensurate with the education level. Agencies and educational institutions should also require degrees for instructors and there should be a targeted effort to increase the pool of instructors that have advanced education degrees.

Vote: **Support: 40** Support with Modification: 30 Do Not Support: 30

Discussion:

- There might be issues with lack of higher degree faculty if the recommendation was implemented.

- This recommendation would lead to a better mobility of EMS providers, educators and management between countries.
- It was pointed out that requiring degree comes with an increase in salary and could be problematic if agencies were not required to hire providers with higher degrees.

Recommendation 6: Hospitals, primary care offices, and other healthcare facilities should collaborate with EMS and other community based health care providers to provide initial and ongoing education with a focus on community based population health.

Vote: **Support: 65** Support with Modification: 25 Do Not Support: 10

Discussion:

- Education focus on interdisciplinary development, continuing education
- Suggested not the focus necessarily being on community based population health
- Cannot prescribe what to do, but show how to help them, show how these innovations work
- Important to include a recognition of a cost benefit analysis and work force shortages and financial issues area
- Essential for everybody in health sector

Recommendation 6A: Initial and ongoing training for prehospital providers should include opportunities for interdisciplinary team-based experiences with other types of patient care providers along the entire illness/injury-to-discharge/rehabilitation continuum.

Vote: **Support: 90** Support with Modification: 10 Do Not Support: 0

Discussion:

- The recommendation is similar to 6 and could be combined with it to make the document simpler
- This recommendation was mostly supported and not discussed in greater detail.

Session 5: Interdisciplinary Collaboration

The primary motivation behind these recommendation is the limited awareness of the role EMS could play and its potential. Some of the issues include lack of standardization across the country. Recommendation ae aimed to help collaboration over completion and help EMS agencies navigate opposition. The following recommendation were discussed and voted on:

Recommendation 1: State governments (state health and EMS offices, Medicaid divisions, and insurance regulators) should ensure that emergency medical services perspectives and representatives are included on all initiatives related to health care reform and health care innovation.

Vote: **Support: 87** Support with Modification: 13 Do Not Support: 0

Discussion:

- This recommendation was mostly supported and not discussed in greater detail.

Recommendation 2: To ensure collaboration toward coordinated care, organizations providing services in the home and community should convene discussions about patient populations, community needs, and possible program alignment and support. These discussions should expand to include payers, primary care providers, and acute care facilities to ensure patient-centered, population health management approaches to meet quality goals and to address priorities across various care settings.

Vote: **Support: 73** Support with Modification: 27 Do Not Support: 0

Discussion:

- It was suggested that the recommendation is too long and nebulous needs a clear actor and be more action oriented

Recommendation 3: EMS provider agencies should consider financial partnerships, joint ventures, or mergers with other community healthcare stakeholders that enable continued innovation, customization, and coordination of community health services provided.

Vote: **Support: 78** Support with Modification: 22 Do Not Support: 0

Discussion:

- A lot of financial stake holders, reach out to them help them maximize aim for their patients
- It was suggested that the recommendation should include home health, hospice and their economic value.
- It was suggested that the word "financial" should be taken out so that the recommendation would encourage partnerships in general. However it was then suggested that if the word financial is removed the recommendation should include payers.

Recommendation 4: Establish a National Committee on EMS-Community Health collaboration comprised of important key stakeholders which meets regularly to discuss integration, cooperation, and collaboration within the healthcare system.

Vote: **Support: 45** Support with Modification: 31 Do Not Support: 24

Discussion:

- The aim of this recommendation is to make EMS a collaborative rather than competitive environment.
- The objective of the recommendation was supported, but it was suggested that the responsibility should be in professional environment and not generated by federal agencies.
- Concerns we raised that due to regional variability, implementing the recommendation could dilute local innovative solutions
- The stakeholders mentioned in the recommendation should be specified

Recommendation 5: Local and State Governments should establish credentialing roles, policies, and practices for Home Health and EMS that reduce or eliminate restrictions on which type of provider can provide which skill or service and in which setting unless there is a clear risk to the patient.

Vote: Support: 35 **Support with Modification: 45** Do Not Support: 20

Discussion:

- Similar recommendation was presented under the education section dealing with paramedic curriculum across the states.
- Some concerns were raised that this might result in problems by breeching into other people`s skill sets.
- The recommendation was supported that if 911 helping at home was viewed as home care it would allow for greater cooperation without which it might be difficult to cooperate.

- It was specified that the main reason behind this recommendation was to specify role clarity so that there is less conflict.
- Some opposition to this recommendation was raised due to it being too prescriptive if state level credentialing process is in place, the recommendation should encourage collaboration rather than outline, who should do what service
- It was suggested that the recommendation should include other agencies that credential not only states (such as hospitals).

Recommendation 6: Community Health Stakeholders including, but not limited to, EMS, Home Health, and Primary Care groups should seek to improve electronic sharing of information.

Vote: **Support: 93** Support with Modification: 7 Do Not Support: 0

Discussion:

- It was suggested that this recommendation concerns information coordination and could be added under the data section

Other suggestions:

- It was suggested that too many recommendations deal with themes that are across sections, it might be possible to have less categories to make the document more concise
- Recommendation for primary care collaboration with EMS, including community paramedicine
- Addressing the issue of EMS being expensive because of the width of its net, the idea should be that it provides outcome values, rather than financial value
- A stronger focus of these recommendation should be made on patient-centered care
- The education about the role of EMS should go beyond the education of EMS providers, but also educating patients and partner organizations

Session 6: Regional Coordination within EMS

It was suggested that some of the recommendations in this section are closely connected to data or financial recommendation and can be included under these sections to make a more concise final document of recommendations. The following recommendation were discussed and voted on:

Recommendation 1: Working with field EMS providers, federal partners, and health care stakeholders, the Centers for Medicare and Medicaid Services (CMS) should incentivize the ongoing development of quality and performance metrics to facilitate better care coordination.

Vote: **Support: 64** Support with Modification: 25 Do Not Support: 11

Discussion:

- There are often huge differences in outcomes even in the same region, it is, therefore, important to gage employees and collaboration across system.
- One of the main goals of the recommendations in this section is to address the large degree of fragmentation in the field.
- EMS in a region should also jointly negotiate with payers.

Recommendation 2: EMS agencies, regardless of design, must actively engage a broad array of stakeholders toward instituting strategies to create an EMS Culture of Safety that produces measurable improvements to the effectiveness and safety of prehospital emergency and health care services for responders, patients, and the public.

Vote: **Support: 50** Support with Modification: 36 Do Not Support: 14

Discussion:

- It is important to create valid performance metrics and a ways to measure outcomes.

Recommendation 3: Different types of EMS agencies sharing the same geographical regions should work together by sharing data and outcomes and by collaborating to receive grants and new contracts from payers.

Vote: Support: 44 **Support with Modification: 48** Do Not Support: 8

Discussion: Due to large support this recommendation was not discussed in greater detail at the meeting.

Recommendation 4: EMS should begin to envision the steps and processes necessary to move from a fee for transport reimbursement model to a system more consistent with other similar services within the broader health care marketplace.

Vote: **Support: 50** Support with Modification: 29 Do Not Support: 21

Discussion:

- In order for innovation on the local level to take place regional EMS agencies and other players have to think in collaboration on how to strategically about how to approach these issues.

Recommendation 5: Standardize protocols, process control measures, medical oversight, and performance measures across larger geographic areas, i.e. state or inter-state, to improve coordination and consistency of care between various EMS systems and the larger health care system.

Vote: **Support: 38** Support with Modification: 31 Do Not Support: 31

Discussion:

- Larger geographic areas should be included in standardized protocols and medical oversight. The approach should be focused on regions rather than individual organizations.
- It was suggested that this recommendation should not be standalone, but rather incorporated into other sections and/or recommendations.
- It was also suggested and discussed that this recommendation would fit into new section of System Development rather than Regional Coordination.
- The recommendation was supported since it provides a framework for the state to set the floor and locals and community can set the ceiling.
- Some concern was expressed about innovation being impeded if protocols, control measures etc. were standardized, since innovation is often an anomaly not the standard and would rarely if everybody followed the exact same protocols.
- It was also discussed that the recommendation could be merged with recommendation 7, in such case it was suggested that "protocols" would be removed from this recommendation.

Recommendation 6: Focus efforts on particular diseases, e.g. stroke, with opportunities for regional coordination and integration of efforts across EMS agencies and health care systems — i.e. early recognition (9-1-1/first response), primary stroke centers (local transport), tertiary centers to include interventional radiology and neurosurgery (secondary transport or bypass transport, i.e. air) — in order to improve care and access for time-sensitive care and intervention. There should be collaboration across types of systems and regions to cover gaps in coverage and payment for EMS agencies.

Vote: Support: 19 **Support with Modification: 63** Do Not Support: 19

Discussion:

- Even though the recommendation is lengthy and specific, it gives a good example of how innovation can work in a system of care and how at different stages interdisciplinary organizations working together can drive a lot of innovation.
- It was discussed if the recommendation was too specific and should be broader. It was suggested that that chronic diseases should be added to the recommendation since allowing for MIH and CP are so central to many of these recommendations rather than just emergency response

Recommendation 7: States or regional jurisdictions should develop consistent standards for EMS systems and providers, regardless of EMS agency type, for licensing, medical oversight, quality, and performance metrics.

Vote: **Support: 47** Support with Modification: 40 Do Not Support: 13

Discussion:

- Care ought to be consistent regardless of the type of provider
- It was suggested that this recommendation could be merged with recommendation 5.
- Since the EMS system should be viewed beyond its transport role, other organization (fire department, ski patrol) that are involved before the patients reach the hospital, should also be involved in these regulation in order to improve care overall.
- EMS can participate in regional performance metrics in order to be incentivized to perform better

Recommendation 7a: The EMS enterprise needs to move beyond being defined by corporate governance and corporate structure of a provider agency, whether public, private, fire, third service, hospital-based, for-profit, not-for profit, etc.

Votes: Support: 18 Support with Modification: 36 **Do Not Support: 46**

Discussion:

- Issues were raised that this recommendation does not really specify what EMS should move towards. It was suggested that possibly a public safety entity.
- This recommendation was seen as not actionable, even though the sentiments behind it were supported

Recommendation 8: EMS agencies should be Learning Healthcare Systems.

Votes: Support: 36 **Support with Modification: 43** Do Not Support: 21

Discussion:

- It was suggested that this recommendation along with recommendations 7 and 7a is not actionable, even though the sentiment behind it was supported by the Committee

Session 7: Medical Oversight & Direction

The following recommendation were discussed and voted on:

Recommendation 1: Effective and innovative emergency medical services and mobile integrate health care depend on critical integration of a well-trained medical director into all aspects of policy development and service delivery—including operations, finances, quality assurance, and training and education. In order to ensure meaningful medical oversight and, therefore, effective and efficient overall system function, the medical director requires dedicated time, sufficient funding, and well-delineated authority for this purpose.

Vote: **Support: 63** Support with Modification: 37 Do Not Support: 0

Discussion:

- It was discussed if there should there be such a medical director in individual EMS agencies. It was suggested that the work "funding" be changed to "resources." In the recommendation.
- There was some discussion about the recommendation prescribing the director to be involved in operation, finances, etc. Disconnecting operations from medicine, could make it difficult to push things forward. Resource allocation is closely connected to patient care and response time and should, therefore, be closely connected to the position of medical director. However, it was suggested that including this in the recommendation can be put constraints on the position of the medical director and the running of agencies.

Recommendation 2: Medical oversight should be structured around a central medical director who collaborates with and has oversight over other specialists. In addition to interdisciplinary collaboration on protocols, there should be options for EMS providers to take medical oversight from other types of physicians when appropriate.

Vote: **Support: 58** Support with Modification: 27 Do Not Support: 15

Discussion:

- This recommendation would lead to more interdisciplinary collaboration within EMS agencies. Currently many agencies have separate functions and this recommendation would suggest a position of a medical director that provides general oversight over specialized parts.

- It should be clarified that the medical director referred to in the recommendation is a medical director of an individual agency.

Recommendation 3: The EMS core content and fellowship experience should include exposure to and training in population health and non-emergent patient care initiatives.

Vote: **Support: 77** Support with Modification: 23 Do Not Support: 0

Discussion:

- Since the core content drives curriculum and competency assessments of Emergency Medicine physicians, this should contain info about population health and nonemergent initiatives.

Recommendation 4: EMS protocols should be standardized across the state or even across the nation.

Vote: Support: 12 **Support with Modification: 46** Do Not Support: 42

Discussion:

- The aim of this recommendation is to reduce unjustified variation in EMS protocols and generating national guidelines for EMS care, both at BLS and ALS level.
- It was suggested that "EMS protocols" would be replaced by "evidence-based consensus guidelines and best practices" as in recommendation 4a, however, objections were raised that the best evidence based guidelines are often determined in urban communities, which makes these guidelines inapplicable to all communities across the nation.

Recommendation 4a: Evidence-based consensus guidelines and best practices should be incorporated into EMS system protocols, so as to establish minimum acceptable standards of care.

Vote: **Support: 90** Support with Modification: 5 Do Not Support: 5

Discussion:

- It was suggested that establishing minimum acceptable standards of care leads to this recommendation being prescriptive, which can be detrimental to innovation.

Recommendation 5: Every state should have a designated State EMS Medical Director who is independent, empowered, and receives appropriate resources and support to address clear and defined roles and responsibilities.

Vote: **Support: 56** Support with Modification: 26 Do Not Support: 19

Discussion:

- Most states already have a designated State EMS Director.
- The qualifications for this Medical Director position should be clarified.
- In order to have a balanced conversation more than one person is necessary, therefore, it was suggested that a board of Medical Directors would be more effective when dealing with different issues.
- The position of a State EMS Medical Director becomes problematic when the position becomes a political issue between hospitals

Recommendation 6: States should create an EMS Regulatory Board that can adopt definitions and practices that make innovation easier and would oversee EMS similar to how State Medical Boards oversee physicians.

Vote: Support: 19 Support with Modification: 37 **Do Not Support: 44**

Discussion:

- This recommendation was previously discussed under the Legal & Regulatory section

Conclusion

The webcast of the meeting has been published on the project website, http://EMSinnovations.org, along with the webcasts from the regional meetings. Paper and electronic feedback forms were provided to all participants so that they could suggest modifications or make comments in more detail. These electronic and paper feedback forms are being collected and analyzed together with these proceedings and the results of the public survey and will provide the revision material for the next draft of the national framework document. This resulting draft will be reviewed by the steering committee in a series of focus group conference calls and the next version of the National Framework document will be available for public comment during the second year of the project.

Appendix A: Steering Committee Members & Organizations

National Steering Committee

Appointed Organizational Representatives

American Ambulance Association (AAA):

Aaron Reinert, NRP, BA – *Executive Director, Lakes Region EMS, North Branch, Minnesota; Treasurer, AAA*

American College of Emergency Physicians (ACEP):

Jeff Beeson, M.D. – *Texas Medical Director for Acadian Ambulance Service; EMS Committee, ACEP*

Harry J. Monroe, Jr. – *Director, Chapter & State Relations, ACEP*

Emergency Nurses Association (ENA):

Mary Alice Vanhoy, MSN, RN, CEN, CPEN, FAEN, NREMT-P – *Nurse Manager at Shore Emergency Center at Queenstown*

International Association of Fire Chiefs (IAFC):

John Sinclair – *Fire Chief, Kittitas Valley Fire Rescue; Emergency Manager, City of Ellensburg, Washington; Board of Directors, Second VP, IAFC*

International Association of Firefighters (IAFF):

Lori Moore, DrPH, MPH, EMT-P – *Assistant to the General President, IAFF*

National Association of County & City Health Officials (NACCHO):

Jeffrey Elder, MD FAAEM – *Medical Director, EMS, City of N.O.*

National Association of EMS Physicians (NAEMSP):

Brent Myers, MD – *President-Elect, NAEMSP*

National Association of EMTs (NAEMT):

Jason White, MPA – *EMS Consultant, Earthlink*

National Association of State EMS Officials (NASEMSO):

Tom Nehring – *Division Director at ND Department of Health, Division of EMS and Trauma; JCERC*

National Volunteer Fire Council (NVFC):

Ed Mund – *Director At-Large, EMS/Rescue Section, NVFC*

Visiting Nurse Associations of America (VNAA):

Tracey Moorhead, MA – *President and CEO, VNAA*

Members at Large

Katrina Altenhofen, MPH*, EMT-P; National EMS Advisory Council (NEMSAC); Founder-West Chester First Responder; Director, Emergency Medical Services for Children (EMSC) Program, Iowa Department of Public Health*

David Cone, MD – *Professor of Emergency Medicine, Yale University; Chief, Section of EMS; Director, EMS Fellowship*

Mike Edgeworth, MD – *Medical Director, Cigna-HealthSpring; Tele-neurologist, HCA*

David Emanuel – *CEO & Co-Founder, Medlert*

Lance Gable, JD, MPH – *Associate Dean forAcademic Affairs, Wayne State University Law School*

Jay Goldman, MD, FACEP – *Medical Director of EMS and Ambulance, Kaiser Permanente NCAL*

Sharon Henry, MBA – *President, Evolution Health, West Region*

Baxter Larmon, PhD, MICP - *Professor, Emergency Medicine, the David Geffen School of Medicine at University of California at Los Angeles (UCLA); Founding Director, Prehospital Care Research Forum; National Association of EMS Educators (NAEMSE)*

Chris Montera – *Assistant CEO/Chief of Clinical Services, Eagle County Paramedic Services*

Todd Olmstead, PhD – *Associate Professor of Public Affairs, Lyndon B. Johnson School of Public Affairs, University of Texas, Austin; James M. and Claudia U. Richter Fellow in Global Health Policy*
Lainie Rutkow, PhD, JD, MPH – *Associate Professor, Johns Hopkins Bloomberg School of Public Health*
Scott Somers, PhD, NREMT-P – *Former Vice Mayor, Mesa Arizona City Council; Professor of Practice, ASU College of Public Service; Senior Fellow, GW Center for Cyber and Homeland Security*
Brenda Staffan, BA – *Director, Community Health Programs, Regional EMS Authority (REMSA)*
Dan Swayze, DrPH, MBA, MEMS- *Vice President, COO, Center for Emergency Medicine of Western Pennsylvania, Inc.*
Jonathan Washko, MBA, NREMT-P, AEMD – Assistant Vice President for CEMS Operations*, North Shore LIJ Health System*
David Williams, PhD – *Executive Director, Institute for Healthcare Improvement*
Gary Wingrove, EMT-P – *Director of Government Relations & Strategic Affairs, Gold Cross/Mayo Clinic Medical Transport; Founder and President, Paramedic Foundation*
Matt Zavadsky, EMT-P, MS-HSA – *Director of Public Affairs, MedStar Mobile Healthcare; Joint National EMS Leadership Forum, NASEMSO; NAEMT*

Appendix B: Participants

Name	Organization or Affiliation
Dave Fogerson	East Fork Fire
Peter Antevy MD	Pediatric Emergency Standards, Inc.
Jennifer Nath, Esq.	
Justin Benagh	
Chuck Kearns, MBA, Paramedic, A-EMD	NAEMT
Kate Keller	Arlington County Fire Department
Michael Mooney	New Jersey OEMS
Joe graw	Imagetrend
Thomas Breyer	International Association of Fire Fighters
Julie Herman	Rural Metro
Michael Seneco	Calvert Advanced Life Support
Jason White, MPA	National Association of EMTs
Christopher Kahn, MD, MPH	University of California, San Diego
Dave Williams, Ph.D.	Medic Health; Institute for Healthcare Improvement
Lynne Richardson, MD	Mount Sinai Health System
Hugh Chapin, MD, MS	Mount Sinai Health System
James Dunford, MD	University of California, San Diego; Fire Department of the City of San Diego
Kevin Munjal, MD, MPH	Mount Sinai Health System
Douglas Kupas, MD	Geisinger Health System; Pennsylvania Department of Health
Melanie Mitros, PhD	St. Luke's Health Initiatives - I work for a health foundation in AZ and am work
Harry J. Monroe, Jr.	American College of Emergency Physicians
Dr. Ryan Hoffman	Bon Secours St Francis Health System
Greta Gue	Bon Secours St Francis Health System
Jeremy Kinsman	NHTSA - Office of EMS
Gregg Margolis	ASPR
Kevin Horahan	HHS-ASPR
Dia Gainor	NASEMSO
David J. Prezant	Fire Dept of the City of New York
Charles Brogan	Good Fellowship Ambulance & EMS Training Institute
Tracey Moorhead	VNAA
Mike Taigman	American Medical Response Ventura County
Thomas Nehring	North Dakota Department of Health - Division of EMS and Trauma
Neal J. Richmond, M.D.	MedStar Mobile Healthcare
Matt Zavadsky	MedStar Mobile Healthcare
Allison J. Bloom	Law Office of Allison J. Bloom
Scott Streicher	MedaPoint inc.
Gregory P. Santulli	Twiage
Nancy A Benedetto	Regional Emergency Medical Services Council of New York City Inc
Alexander Kuhn	American Heart Association
David Zaiman	ImageTrend Inc.
Katrina Altenhofen	IDPH-EMSC West Chester First Responders
John Hui	Twiage

Alan M Craig	American Medical Response
Hanan Cohen	Empress EMS
Gary Wingrove	The Paramedic Foundation
Christopher Crowley	West Health Institute
Jay Goldman	Kaiser Permanente
Mario Weber	M10 Solutions LLC
Bax Larmon	UCLA School of Medicine
Jonathan Washko	North Shore - LIJ Center for EMS
David Cone	Yale University School of Medicine
Noah Smith	NHTSA Office of EMS
Brenda Staffan	REMSA
Mike Taigman	AMR Ventura
Kelin Buckley	World Advancement of Technology for EMS and Rescue, Inc.
Novneet Sahu	Christiana Care Health System Delaware Office of EMS
Teresa Lee	Alliance for Home Health Quality and Innovation
John Sinclair	International Association of Fire Chiefs
Michael Gerber	The RedFlash Group
Keith Griffiths	RedFlash Group, representing federal Office of EMS
Todd Olmstead	UT-Austin, LBJ School of Public Affairs
David Emanuel	Medlert Inc.
Christopher Montera	Eagle County Paramedic Services
Chris Baker MD	Sanovas/Otogenix
Kelly Cormier	World Advancement of Technology for EMS and Rescue
Lance Gable	Wayne State University Law School
Mary Alice Vanhoy	Emergency Nurses Association
Mike Edgeworth	Cigna-Healthspring
Sharon Henry	Evolution Health
Gregory Davis	EasCare Ambulance Currently providing a MIH program. Would be happy to s
Ed Mund	National Volunteer Fire Council
Daniel Swayze	Center for Emergency Medicine of Western PA
Dr. Lori Moore-Merrell	IAFF
Jeffrey Elder, MD	NACCHO New Orleans EMS
Aarron Reinert	Lakes Region EMS representing American Ambulance Association
Scott Somers	Phoenix Fire Department