Improving Systems of Care Through Meaningful Measurement
Acknowledgments

Thank you to the National Highway Traffic Safety Administration for funding and supporting this important work.

50 workgroup and committee members giving their time and expertise!

Public volunteers who will test and discuss draft measures prior to becoming final.
History of EMS Data & Quality Systems

- 2001 NEMSIS Inception
- 1994 Uniform Prehospital EMS Dataset
- 2005 v2.2 update
- 2009 NHTSA – EMS Performance Measures Based on V2.2
- 2018 v3.4 cutover

1997 NHTSA - A Leadership Guide to Quality Improvement
NEMSIS Datasets Supporting Performance Measurement

Local Agency

State

National

What can you do with your data?
Patient Centered Health Systems

Triple Aim

Better Care
Smarter Spending
Healthier People
Pay For Performance is here!

- **Value**: CMS fee for service based payments tied to value for providers in alternative payment models (i.e. accountable care organizations, medical homes, bundled payments)
  1. 30% by 2016
  2. 50% by 2018

- **Quality**: CMS quality program (performance measures) participation
  1. 85% by 2016
  2. 90% by 2018
Health Care Learning & Action Network

• The Department of Health & Human Services is facilitating public-private partnerships to meet or exceed the CMS goals for value based payments
Medicare (CMS) Payment System Categories

<table>
<thead>
<tr>
<th>No.</th>
<th>Payment System Description</th>
<th>CMS FFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>FFS with no link of payment to quality</td>
<td>Limited in CMS FFS, Majority of CMS payments now linked to quality</td>
</tr>
<tr>
<td>2.</td>
<td>FFS with a link of payment to quality</td>
<td>Hospital value-based purchasing, Physician value-based modifier, Readmission/Hospital Acquired Condition Reduction Program</td>
</tr>
<tr>
<td>3.</td>
<td>Alternative payment models built on FFS architecture</td>
<td>ACOs, Medical Homes, Bundled payments, Comprehensive primary care</td>
</tr>
<tr>
<td>4.</td>
<td>Population-based payment</td>
<td>Eligible Pioneer accountable care organizations in years 3-5</td>
</tr>
</tbody>
</table>

FFS = Fee For Service  
ACO = Accountable Care Organization
CMS Quality Measures

1. Developed by Measure Stewards (such as NASEMSO)
2. Submitted to National Quality Forum (NQF)
3. Extensive public evaluation of draft measures
4. NQF chooses to endorse measure (or not)
5. CMS chooses to accept measure (or not) for payment
6. Health care providers submit Measure Scores electronically to CMS
EMS Performance Measures

• EMS industry opportunity to develop measures from us and work for us!

• EMS Compass Initiative will:
  1. Develop a process for designing EMS specific performance measures.
  2. Design a family of structural, outcome, process, and balancing measures.
  3. Develop a guidance for EMS agencies and providers in how to use measures.
Measure Design Process:
A Continuous Cycle

- Measure Design
  - Vendor technical testing
  - Public testing & input
- Evidence Review
- Prioritization
- Public & Expert Input
- Submission to NQF & CMS
- Call For Measures
- Steering Committee Approval
- Measure Testing
Measure Conceptualization

- Public Call For Measures
- Webinars for Public Input
- Prioritization
Measure Specification

- Evidence Review
- Measure Drafting
- Evidence Review
- Technical Specification
- Feasibility Evaluation
Measure Testing

- Alpha Testing
- Beta – Public Testing & Input
- Revisions
Measure Implementation

- Measure Approval
- eCQM Documentation
- NQF Submission
- CMS eCQM Submission
What is a performance measure?

Measurement Domain

<table>
<thead>
<tr>
<th>Clinical Area</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td></td>
</tr>
<tr>
<td>Balancing</td>
<td></td>
</tr>
</tbody>
</table>

Family of Measures

Measure Formula

Denominator | Numerator | =Score
### Domains & Example Possible Clinical Conditions & Topics

<table>
<thead>
<tr>
<th>Domains</th>
<th>Example Possible Clinical Conditions &amp; Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient and Family Engagement</td>
<td>Customer satisfaction, parent/family involvement, patient experience</td>
</tr>
<tr>
<td>Patient Safety</td>
<td>Stretcher drop rate, adverse event rate, ambulance crash rate, deteriorating patient (early warning), infection control/hand hygiene</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>Matching care to need, access</td>
</tr>
<tr>
<td>Population/Public Health</td>
<td>Volumes, symptoms onset to 911, requests per capita</td>
</tr>
<tr>
<td>Efficient Use of Healthcare Resources</td>
<td>Cost per capita/patient, tax dollars per capita, patient utilization rate, patient contact time reliability, crash scene time</td>
</tr>
<tr>
<td>Clinical Process/Effectiveness</td>
<td>Stroke, STEMI, SCA, trauma, RAD, sepsis, CHF, pain management, hypoglycemia, seizures, COPD, mental health, anaphylaxis, provider skill success rate</td>
</tr>
<tr>
<td>EMS Workforce*</td>
<td>Turnover/Retention, vacancy rate, productivity, Compensation Comparator, injury rate, lost work days rate, education, R&amp;R, certification &amp; licensure, safety (near miss reporting, policies, etc), provider safety</td>
</tr>
<tr>
<td>EMS Fleet*</td>
<td>Vehicle miles traveled (VMT) rates</td>
</tr>
<tr>
<td>EMS Data*</td>
<td>NEMSIS submission rate, data integrity</td>
</tr>
<tr>
<td>EMS Finance*</td>
<td>Reimbursement rates</td>
</tr>
</tbody>
</table>

*EMS Convenience Domains that are outside the NQS/NQF original six but may prove to be necessary for EMS performance measurement.*
EMS Measure Considerations

• NQF Priority Criteria*
  – Importance to Measure and Report
  – Feasibility
  – Scientific acceptability of measure properties**
  – Usability and Use
  – Comparison to related or Competing measures.

• Data source from the National Emergency Medical Services Information System (NEMSIS) Version 3 generation data whenever possible.

* http://www.qualityforum.org/docs/measure_evaluation_criteria.aspx

** The preferred systems for grading the evidence are the U.S. Preventive Services Task Force (USPSTF) grading definitions and methods, or Grading of Recommendations, Assessment, Development and Evaluation (GRADE) guidelines.
Overall Org Chart

Steering Committee
(Bob Bass, MD)

Evidence Review Group
(Alex Garza, MD)

Measure Design Group
(Dave Williams, PhD)

Technology Developers Group
(Debbie Gilligan)

Stakeholder Communication Group
(Keith Griffiths, BA)

Project Execution Group
(Dia Gainor, MPA)

Federal Partners

Project Staff:
Nick Nudell, MS, NRP – Project Manager
Zoe Renfro, BA – Project Staff
EMS Compass Initiative
Meetings

• Steering Committee:
  – 20 members 4 meetings

• Measurement Design Group:
  – 12 members 8 meetings

• Technology Developers Group:
  – 9 members 2 meetings

• Communications Group:
  – 6 members 4 meetings
Initiative Activity Schedule

• Oct. 2014: Project Started
• Jan. 2015-July 2016: 24 meetings & workgroups
• July 2016: Submit to peer review journal
• July-Aug. 2016: Conduct Blue Ribbon Panel
• Aug. 2016: Publish NASEMSO document
• Sept. 2016: Completion of this phase
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(760) 405-6869

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