Measuring the Effectiveness of Mobile Integrated Healthcare Programs

Introduction and Overview

Hosts:

- Brenda Staffan, REMSA
- Dan Swayze, UPMC/Emed Health
- Brian LaCroix, Allina Medical Transport
- Gary Wingrove, Mayo/IRCP/NCEMSI
- Brent Myers, Wake EMS
- Matt Zavadsky, MedStar Mobile Healthcare

Why Outcome Measures?

- Healthcare is moving to outcome-based economic models
- “EMS” is healthcare
- MIH-CP moves even further into the healthcare space
- Key to sustainability is proof

Intent of the Strategy

- Develop uniform measurement
  - Replication of successful programs
  - Build evidence base
  - Increased “N” for evaluation
- Origin
  - Meetings with CMS & CMMI
  - Meetings with AHRQ & NCQA
- Build consortium of MIH programs

The Process…

- **Phase 1:** First draft "Uniform MIH Measures Set"
  - June - September '14

Brenda Staffan
Dan Swayze
Matt Zavadsky

The Process…

- **Phase 2:** Introduce to operating programs via webinar
  - October ’14
  - Feedback process starts

Brian LaCroix
Gary Wingrove
Brent Myers

The Process…

- **Phase 3:** F2F national stakeholder/advocacy group meetings
  - November ‘14 (EMS World/AAA Annual Conference)
  - December ‘14 invitations to join process
    - **AAA**
    - **NAEMSP**
    - **ACEP**
    - **IAFC**
    - **IAFF**
    - **NEMSMA**
    - **AHRQ**
    - **IHI**
    - **NAEMSE**
    - **NFPA**
    - **NCQA**
    - **NRHA**
    - **IAED**
    - **IAEMSC**
    - **NASEMSO**
    - **Operating MIH/CP Programs**

The Process…

- **Phase 3.5**
  - Rank "Top 10" measures (ok, 17)
- **Phase 4:** Federal partner introduction
  - April '15 during EMS On the Hill Day
  - AHRQ, NCQA, & CMS
- **Phase 5**: Promote payment policy change
  - CMS, national payers, etc.

The Tool…

- Structure
- Layout
  - Structure & CP Intervention 1st
- Domains:
  - Quality of Care & Patient Safety
  - Experience of Care
  - Utilization
  - Cost of Care/Expenditures
  - Balancing

The Tool…

- Formulas
- Measure priorities
- Feedback process
  - Structured
  - Responses

The Measures…

Mobile Integrated Healthcare Program

Measurement Strategy Overview

Aim

A clearly articulated goal statement that describes how much improvement by when and links all the specific outcome measures; what are we trying to accomplish?

Develop a uniform set of measures which leads to the optimum sustainability and utilization of patient centered, mobile resources in the out-of hospital environment and achieves the Triple Aim® — improve the quality and experience of care; improve the health of populations; and reduce per capita cost.

Measures Definition:

1. **Core Measures (BOLD)**
   a. Measures that are considered *essential* for program integrity, patient safety and outcome demonstration.

2. **CMMI Big Four Measures (RED)**
   a. Measures that have been identified by the CMS Center for Medicare and Medicaid Improvement (CMMI) as the four primary outcome measures for healthcare utilization.

3. **MIH Big Four Measures (PURPLE)**
   a. Measures that are considered *mandatory* to be reported in order to classify the program as a bona-fide MIH or Community Paramedic program.

4. **Top 17 Measures (highlighted)**
   a. The 17 measures identified by operating MIH/CP programs as essential, collectable and highest priority to healthcare partners.

Notes:

1. All financial calculations are based on the ***national average Medicare payment*** for the intervention described. Providers are encouraged to also determine the ***regional average Medicare payment*** for the interventions described.
2. Value may also be determined by local stakeholders in different ways such as reduced opportunity cost, enhanced availability of resources. Program sponsors should develop local measures to demonstrate this value as well.

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Structure/Program Design Measures

Describes the development of system infrastructures and the acquisition of physical materials necessary to successfully execute the program

Name	Description of Goal	Components	Scoring	Evidence-base, Source of Data
Executive Sponsorship	**S1:** Program has Executive level commitment and the program manager reports directly to the Executive leadership of the organization.	The community paramedicine program plan clearly identifies organizational executive level commitment for the human, financial, capital and equipment necessary to develop, implement, and manage the community paramedicine program both clinically and administratively.	0. Not Known 1. There is no evidence of organizational executive level commitment 2. There is some evidence of limited commitment for the program. 3. There is evidence of full commitment for the program.	Documents submitted by agency demonstrating this commitment such as approved budgets, organizational chart and job descriptions
Strategic Plan	**S2:** The program has an executive level approved strategic plan.	The strategic plan should be based on the knowledge of improvement science and rapid cycle testing, and include the key components of a driver diagram, specific measurement strategies, implementation milestones and a financial sustainability plan.	0. Not Known. 1. No evidence of a strategic plan. 2. A written strategic plan, but it lacks key components. 3. A written strategic plan that includes all key components.	Institute for Healthcare Improvement

Name	Description of Goal	Components	Scoring	Evidence-base, Source of Data
Public & Stakeholder Engagement	**S9:** Care Coordination Advisory Committee	Community paramedicine program, in concert with a multidisciplinary, multi-agency advisory committee meets regularly and advises the program on strategies for improving care coordination.	0. Not Known 1. There is no care coordination advisory committee. 2. There is an established care coordination advisory committee, but it is missing key stakeholders. 3. There is an established care coordination advisory committee and all key stakeholders are represented.	Adapted from HRSA Community Paramedic Evaluation Tool
Specialized Training & Education	**S10:** Specialized original and continuing education for community paramedic practitioners	A specialized educational program has been used to provide foundational knowledge for community paramedic practitioners based on a nationally recognized or state approved curriculum.	0. Not known 1. There is no specialized education offered. 2. There is specialized education offered, but it lacks key elements of instruction. 3. There is specialized education offered meeting or exceeding a nationally recognized or state approved curriculum.	North Central EMS Institute Community Paramedic Curriculum or equivalent.

Outcome Measures for Community Paramedic Program Component

Describes how the system impacts the values of patients, their health and well-being

Domain	Name	Description of Goal	Value 1	Value 2	Formula	Evidence-base, Source of Data
Quality of Care & Patient Safety Metrics	**Q1:** Primary Care Utilization	Increase the number and percent of patients *utilizing* a Primary Care Provider (if none upon enrollment)	Number of enrolled patients with an established PCP relationship upon graduation	Number of enrolled patients without an established PCP relationship upon enrollment	Value 1 Value 1/Value 2	Agency records
	Q2: Medication Inventory	Increase the number and percent of medication inventories conducted with issues identified and communicated to PCP	Number of medication inventories with issues identified and communicated to PCP	Number of medication inventories completed	Value 1 Value 1/Value 2	Agency records
	Q3: Care Plan Developed	Increase the number and percent of patients who have an identified and documented plan of care with outcome goals	Number of patients with a plan of care communicated with the patient's PCP	All enrolled patients	Value 1 Value 1/Value 2	Agency records

Mobile Integrated Healthcare Summit

Domain	Name	Description of Goal	Value 1	Value 2	Formula	Evidence-base, Source of Data
Experience of Care Metrics	**E1:** Patient Satisfaction	Optimize patient satisfaction scores by intervention.	To be determined based on tools developed	To be determined based on tools developed		Recommend an externally administered and nationally adopted tool, such as, HCAPHS; Home Healthcare CAPHS (HHCAPHS)
	E2: Patient Quality of Life	Improve patient self-reported quality of life scores.	To be determined based on tools developed	To be determined based on tools developed		Recommended tools (EuroQol EQ-5D-5L, CDC HRQoL, University of Nevada-Reno)

Domain	Name	Description of Goal	Value 1	Value 2	Formula	Notes
Utilization Metrics	**U1:** Ambulance Transports	Reduce rate of unplanned ambulance transports to an ED by *enrolled patients*	Number of *unplanned* ambulance transports up to 12 months post-graduation	Number of *unplanned* ambulance transports up to 12 months pre-enrollment	(Value 1-Value 2)/Value 2	Monthly run chart reporting and/or pre-post intervention comparison
	U2: Hospital ED Visits	Reduce rate of ED visits by *enrolled patients* by intervention	ED visits up to 12 months post-graduation	ED visits up to 12 months pre-enrollment	(Value 1-Value 2)/Value 2	Monthly run chart reporting and/or pre-post intervention comparison
			OR Number of ED Visits avoided in CP intervention patient		Value 1	
	U3: All - cause Hospital Admissions	Reduce rate of all-cause hospital admissions by *enrolled patients* by intervention	Number of hospital admissions up to 12 months post-graduation	Number of hospital admissions up to 12 months pre-enrollment	(Value 1-Value 2)/Value 2	Monthly run chart reporting and/or pre-post intervention comparison

Domain	Name	Description of Goal	Value 1	Value 2	Formula	Evidence-base, Source of Data
Balancing Metrics	**B1:** Practitioner (EMS/MIH) Satisfaction **Desirable Measure**	Optimize practitioner satisfaction scores	To be determined based on tools developed			Recommend externally administered
	B2: Partner Satisfaction **Desirable Measure**	Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores	To be determined based on tools developed			Recommend externally administered
	B3: Primary Care Provider (PCP) Use	Optimize Number of PCP visits resulting from program referrals during enrollment	Number of PCP visits during enrollment		Value 1	Network provider or patient reported

Definitions

Specific Metric Definitions:

Expenditure: The amount ***PAID*** for the referenced service. Expenditures should generally be based on the national and regional amounts paid by Medicare for the covered services provided.

Examples:

Service	Cost to Provide the Service by the Provider	Amount Charged (*billed*) by the Provider	Average Amount Paid by Medicare
Ambulance Transport	$350	$1,500	**$420**
ED Visit	$500	$2,000	**$969**
PCP Office Visit	$85	$199	**$218**

National CMS Expenditure by Service Type:

Service	Average Expenditure	Source
Emergency Ambulance Transport	$419	Medicare Tables from CY 2012 as published
ED Visit	$969	http://www.cdc.gov/nchs/data/hus/hus12.pdf
PCP Office Visit	$218	http://meps.ahrq.gov/data_files/publications/st381/stat381.pdf
Hospital Admission	$10,500	http://www.hcup-us.ahrq.gov/reports/projections/2013-01.pdf

General Definitions

- *Adverse Outcome*: Death, temporary and/or permanent disability requiring intervention
- *All Cause Hospital Admission:* Admission to an acute care hospital for any admission DRG
- *Average Length of Stay:* The average duration, measured in days, of an in-patient admission to an acute care, long term care, or skilled nursing facility
- *Care Plan*: A written plan that addresses the medical and psychosocial needs of an enrolled patient that has been agreed to by the patient and the patient's primary care provider
- *Case Management Services*: Care coordination activities provided by another social service agency, health insurance payer, or other organization.
- *Core Measure*: Required measurement for reporting on MIH-CP services
- *Critical Care Unit Admissions or Deaths*: Admission to critical care unit within 48 hours of CP intervention; unexpected (non-hospice) patient death within 48 hours of CP visit
- *Desirable Metric*: Optional measurement
- *Enrolled Patient*: A patient who is enrolled with the EMS/MIH program through either; 1) a 9-1-1 or 10-digit call; or 2) a formal referral and enrollment process.
- *Evaluation*: determination of merit using standard criteria
- *Financial Sustainability Plan*: a document that describes the expected revenue and/or the economic model used to sustain the program.
- *Guideline*: a statement, policy or procedure to determine course of action
- *Hotspotter/ High Utilizers*: Any patient utilizing EMS or ED services 12 times in a 12 month period, or as defined by local program goals.
- *Measure*: dimension, quantity or capacity compared to a standard
- *Medication Inventory*: The process of creating the most accurate list possible of all medications a patient is taking — including drug name, dosage, frequency, and route — and comparing that list against the physician's admission, transfer, and/or discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital.
- *Metric*: a standard of measurement
- *Payer Derived: measure that must be generated by a payer from their database of expenditures for a member patient*
- *Pre and Post Enrollment*: The beginning date and ending date of an enrolled patient.

Feedback…

MIH Measurement Strategy Feedback Form

Submitted by: Kevin Munjal (Name) Representing: NY Mobile Integrated Healthcare Association / Mount Sinai (Agency/Association) Date: 12/15/2014

Measure # and Title	Recommendation for Change	Rationale
S1 Executive Sponsorship	Scoring of "There is no evidence .." should be changed to 0 or perhaps be equivalent to "Not Known"	No evidence of organizational executive level commitment could potentially mean there is a lack of interest and support and perhaps even resistance or other barriers to success coming from inside the organization. This is potentially worse than being "Not Known" perhaps because key conversations have not yet occurred.
S2 Strategic Plan	Overlap with S1. Scores 0 and 1 should be combined.	S2 seems dependent on S1. Full commitment of executive leadership is a pre-requisite to having a strategic plan approved. Should these really be separate measures or should a Strategic Plan be the required evidence in measure S1. Depending on how the scores are being used, it may be unfairly weighting the same element. Perhaps the scale for S1 should be able to go up to 5 or 6. Again, scores 0 and 1 are equivalent.
S3 Healthcare Delivery System Gap Analysis	Should be down weighted. Maybe no more than 2 points. Add expiration date.	This is obviously outside the scope of the EMS agency. If they are fortunate that one has been performed, they are not all created equal. When does a GAP analysis expire? 5 years? 10 years?
S4 Community Resource Capacity Assessment	Overlap with S3.	Better phrasing overall. Seems to be more achievable by individual agency. No specific change but would shift emphasis from S3 to S4.
S8 HIT Integration with Local / Regional Healthcare System	Make data exchange bi-directional	It seems that this measure is only assessing the information from the CP encounter being available to administrators (and at level 3) to primary care and others. Either in this measure or in a separate measure, CP / EMS providers should receive meaningful and relevant information from the healthcare system prior to / during their encounter.

Next Steps

- CP Process Measures workgroup
- Outcome Measure workgroups for other MIH interventions
  - 9-1-1 Nurse Triage
  - Ambulance Transport Alternatives
  - Alternative Response Models
    - NP/PA, etc.?