

# 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 (Isolated)

- a. The 17 measures identified by operating MIH/CP programs as essential, collectable and highest priority to healthcare partners.
- b. These measures are isolated in this document for ease of reference.

### 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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## Measure Categories

**Structure:** Describes the acquisition of physical materials and development of system infrastructures needed to execute the service (Rand). For example:

- Community Health Needs Assessment
- Community Resource Capacity Assessment
- Executive Sponsorship, Strategic Plan & Program Launch Milestones
- Organizational Readiness Assessment – Health Information Technology Systems
- Organizational Readiness Assessment – Medical Oversight
- Plan for Integration with Healthcare, Social Services and Public Safety Systems

**Outcomes:** Describes how the system impacts the values of patients, their health and wellbeing (IHI). For example:

### *Quality of Care Metrics*

- Patient Safety
- Care Plan Acceptance and Adherence
- Medical Home
- Medication Inventories

### *Utilization Metrics*

- All-cause Hospital Admissions
- Emergency Department Visits
- Unplanned 30-day Hospital Readmissions

### *Cost of Care Metrics*

- Expenditure Savings by Intervention

### *Experience of Care Metrics*

- Patient Quality of Life
- Patient Satisfaction

**Definitions:** Throughout the document, hyperlinks for certain defined terms are included.

**Balancing:** Describes how changes designed to improve one part of the system are impacting other parts of the system, such as, impacts on other stakeholders such as payers, employees, or community partners (IHI). For example:

- Partner (healthcare, behavior health, public safety, community) satisfaction
- Practitioner (EMS/MIH) satisfaction
- Public and stakeholder engagement
- PCP and other healthcare utilization

**Process:** Describes the status of fundamental activities associated with the service; describes how the components in the system are performing; describes progress towards improvement goals (Rand/IHI). For example:

- Clinical & Operational Metrics
- Referral & Enrollment Metrics
- Volume of Contacts, Visits, Transports, Readmissions

## 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
<b>Specialized Training &amp; Education</b>	<b>S10:</b> 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 <i>utilizing</i> a Primary Care Provider (if none upon enrollment)	Number of <u>enrolled patients</u> 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: <u>Medication Inventory</u>	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
	Q5: Unplanned Acute Care Utilization (e.g.: emergency ambulance response, urgent ED visit)	Minimize rate of patients who require unplanned acute care related to the CP care plan within 6 hours after a CP intervention	Number of patients who require unplanned acute care related to the CP care plan within 6 hours after a CP intervention	All CP visits in which a referral to Acute Care was NOT recommended	Value 1/Value 2	Agency records

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 <u>unplanned ambulance transports</u> to an ED by <i>enrolled patients</i>	Number of <i>unplanned</i> ambulance transports up to 12 months post-graduation	Number of <i>unplanned</i> ambulance transports up to 12 months pre- <u>enrollment</u>	(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 <i>enrolled patients</i> 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
			<b>OR</b> Number of ED Visits avoided in CP intervention patient		Value 1	
	U3: All - cause Hospital Admissions	Reduce rate of all-cause hospital admissions by <i>enrolled patients</i> 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
U4: Unplanned 30-day Hospital Readmissions	Reduce rate of all-cause, unplanned, 30-day hospital readmissions by <i>enrolled patients</i> by intervention	Number of actual 30-day readmissions	Number of anticipated 30-day readmissions	(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
Cost of Care Metrics -- Expenditure Savings	<b>C1: Ambulance Transport Savings (ATS)</b>	Reduce <u>Expenditures</u> for unplanned ambulance transports to an ED <i>pre and post enrollment or per event</i>	Ambulance transport utilization change in measure period X average payment per transport for enrolled patients MINUS Expenditure per CP patient contact	Number of patients enrolled in the CP program	Value 1 / Value 2	Monthly run chart reporting and/or pre-post intervention comparison  CMS Public Use Files (PUF) for ambulance supplier expenditures or locally derived number
	<b>C2: Hospital ED Visit Savings (HEDS)</b>	Reduce expenditures for ED visits <i>pre and post enrollment or per event</i>	ED utilization change in measure period X average payment per ED visit for enrolled patients MINUS Expenditure per CP patient contact	Number of patients enrolled in the CP program	Value 1/ Value 2	Monthly run chart reporting and/or pre-post intervention comparison  Medical Expenditure Panel Survey (MEPS), or individually derived payer data
	<b>C3: All-cause Hospital Admission Savings (ACHAS)</b>	Reduce expenditures for <u>all-cause hospital admissions</u> <i>pre and post enrollment or per event</i>	Hospital admission change in measure period X average payment per admission for enrolled patients MINUS Expenditure per CP patient contact	Number of patients enrolled in the CP program	Value 1/ Value 2	Monthly run chart reporting and/or pre-post intervention comparison  Medical Expenditure Panel Survey (MEPS), or individually derived payer data

Domain	Name	Description of Goal	Value 1	Value 2	Formula	Evidence-base, Source of Data
	<b>C6: Total Expenditure Savings</b>	Total expenditure savings for all CP interventions	Individual savings for each enrollee (ATS+HEDS + (ACHAS or UHRS)+USNFS)) MINUS the Cost of CP interventions for intervention per enrollee, including alternative sources of care expenditures		Sum of Value 1	Monthly run chart reporting and/or pre-post intervention comparison
<b>Balancing Metrics</b>	<b>B1:</b> Practitioner (EMS/MIH) Satisfaction **Desirable Measure**	<b>Optimize</b> practitioner satisfaction scores	To be determined based on tools developed			Recommend externally administered
	<b>B2:</b> Partner Satisfaction **Desirable Measure**	Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores	To be determined based on tools developed			Recommend externally administered
	<b>B3:</b> 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 ( <i>billed</i> ) 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	<a href="http://www.cdc.gov/nchs/data/hus/hus12.pdf">http://www.cdc.gov/nchs/data/hus/hus12.pdf</a>
PCP Office Visit	\$218	<a href="http://meps.ahrq.gov/data_files/publications/st381/stat381.pdf">http://meps.ahrq.gov/data_files/publications/st381/stat381.pdf</a>
Hospital Admission	\$10,500	<a href="http://www.hcup-us.ahrq.gov/reports/projections/2013-01.pdf">http://www.hcup-us.ahrq.gov/reports/projections/2013-01.pdf</a>

### Triple Aim

- Improve the quality and experience of care
- Improve the health of populations
- Reduce per capita cost

**Driver Diagram:** A Driver Diagram is a strong one-page conceptual model which describes the projects' theory of change and action. It is a central organizing element of the operations/implementation plan and includes the aim of the project and its goals, measures, primary drivers and secondary drivers. The aim statement describes what is to be accomplished, by how much, by when and where?

- Aim – A clearly articulated goal statement that describes how much improvement by when and links all the specific measures. What are we trying to accomplish? CMMI/IHI.
- Primary Drivers – System components that contribute directly to achieving the aim; each primary driver is linked to clearly defined outcome measure(s). CMMI.
- Secondary Drivers – Actions necessary to achieve the primary driver; each secondary driver is linked to clearly defined process measure(s). CMMI.

### **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.
- Repatriation: Returning a person to their original intended destination, such as an emergency department, following an intervention
- Social & Environmental Hazards and Risks: include trip/fall hazards, transportation, electricity, food, etc.
- Standard: criteria as basis for making a judgment
- Unplanned: Any service that is not part of a patient's plan of care.