



## Statewide Healthcare Innovation Plan (SHIP)

### Community Health EMS (CHEMS) Measures Design Workgroup Recommendations

#### Background and Introduction:

Community Health Emergency Medical Services (CHEMS) is an evolving, innovative healthcare delivery model wherein emergency medical services (EMS) personnel serve to extend the reach of primary care and preventative services outside of the traditional clinical settings. CHEMS providers in Idaho have an expanded provider role and work within their current scope of practice. Examples of these expanded roles may include:

- Acting as healthcare navigators for patients
- Transitional care for patients following discharge from a hospital stay
- Vaccinations
- Medication inventories
- Resource coordination
- Basic medical therapeutics

The Statewide Healthcare Innovation Plan (SHIP) includes the development and implementation of CHEMS programs in rural and underserved communities as part of the “virtual” Patient-Centered Medical Home. These programs will help expand primary care reach and capacity, become assets in the medical-health neighborhood, and improve access to healthcare services.

#### SHIP CHEMS Measures Design Workgroup

A SHIP CHEMS Measures Design Workgroup was convened to identify metrics, data collection mechanisms, and data reporting strategies to test CHEMS against the Triple Aim. The workgroup included 32 stakeholders from a wide range of expertise; including health systems, primary care, higher education, payers, EMS agencies, Division of Public Health staff, critical access hospitals, Public Health Districts, and Qualis Health. This workgroup convened for three full-day facilitated meetings between January-March 2016 and additional work was accomplished electronically between meetings.

#### CHEMS Measures Design Workgroup Highlights:

- **Subject Matter Expert:** Matt Zavadsky, MS-HSA, EMT, a nationally-recognized subject matter expert, presented information and best practices regarding the development of a standard set of outcome measures EMS agencies can use to test program effectiveness. This work has been vetted on the national level by organizations such as the Agency for Healthcare Research and Quality, National Committee for Quality Assurance, and Institute for Healthcare Improvement. Mr. Zavadsky referenced an outcome measures strategy tool agencies can refer to when developing

their measures. Please refer to these links to view his presentation and measures tool:

- <http://www.ship.idaho.gov/Portals/93/Documents/CHEMS/CHEMS%20Outcome%20Metrics%20Presentation%201-22-2016.pdf>
- [http://www.ship.idaho.gov/Portals/93/Documents/CHEMS/MIH%20Metrics%20for%20Community%20Health%20Interventions%20Top%2017%20Isolated%204-7-15%20\(J%20%20%20.pdf](http://www.ship.idaho.gov/Portals/93/Documents/CHEMS/MIH%20Metrics%20for%20Community%20Health%20Interventions%20Top%2017%20Isolated%204-7-15%20(J%20%20%20.pdf)

- ***Measure Design and Recommendations:*** The measure tool and information presented by Mr. Zavadsky generated important discussions and stakeholder suggestions about measures SHIP CHEMS agencies can implement. Through facilitated decision-making, the workgroup identified a set of outcome measures CHEMS agencies should collect and report to test the CHEMS concept. The measures for recommendation to the Idaho Healthcare Coalition include the following:

- ***Quality and Experience Measure:*** Patient health-related quality of life
- ***Utilization Measure:*** Reduction in emergency department use
- ***Cost Measure:*** Expenditure savings related to a reduction in emergency department use
- ***Quality Measure:*** Patient connection to primary care provider
- ***Quality and Safety Measure:*** Medication inventory to identify and reduce medication discrepancies

***\*\*Please see Appendix A, page 3, for details about each measure.***

- ***Data Collection and Reporting Methods:*** EMS Agency workgroup members were surveyed to provide feedback and perspective about data collection and reporting capacity. The workgroup discussed the survey results, general data collection questions, potential audience (i.e., who needs the information to guide decision-making about the value/impact of CHEMS), data format, and other considerations. Key results include:

- ***EMS Agency Survey Information:*** EMS Agencies indicated that collecting 4-6 measures is feasible and they can collect the recommended measures in applications such as Excel and Access.
- ***Data Collection and Analysis:*** SHIP personnel received feedback from the SHIP data analytics contractor with regard to aggregating and analyzing CHEMS measures. The contractor can be a resource to support analysis of the recommended measures. If other more automated strategies are not available, the workgroup determined agency data could be collected and reported to SHIP or IDHW staff. This data could subsequently be sent to the data analytics team for analysis. The data analytics contractor suggested an on-line survey instrument, such as Survey Monkey professional version, could also be considered.

***\*\*Further discussions and decisions regarding data collection and reporting strategies will occur in future CHEMS Workgroup meetings.***

Please see the SHIP CHEMS webpage to view workgroup materials and information:

<http://www.ship.idaho.gov/WorkGroups/CommunityHealthEMS/tabid/3050/Default.aspx>

**Appendix A**

**IDAHO COMMUNITY HEALTH EMS (CHEMS)  
MEASURES DESIGN WORKGROUP  
Measures and Data Elements**

**MEASURE 1: Health Related Quality of Life**

Data Elements/Questions

Patients will answer the following questions at or around their last anticipated community paramedic (CP) visit:

- 1) Thinking back to *before* the start of your Community Paramedic visits, please rate your level of confidence in managing your own health.

Very low	Low	Moderate	High	Very high
1	2	3	4	5

- 2) Thinking about how you feel *today*, please rate your level of confidence in managing your own health.

Very low	Low	Moderate	High	Very high
1	2	3	4	5

- 3) How would you describe your overall health *before* the start of your Community Paramedic visits?

Very poor	Poor	Moderate	Good	Excellent
1	2	3	4	5

- 4) How would you describe your overall health *today*?

Very poor	Poor	Moderate	Good	Excellent
1	2	3	4	5

- 5) Thinking back to *before* the start of your Community Paramedic visits, how much did your health negatively impact your daily activities?

Not at all	A little bit	Somewhat	Quite a bit	Very much
1	2	3	4	5

- 6) How much does your health negatively impact your daily activities *today*?

Not at all	A little bit	Somewhat	Quite a bit	Very much
1	2	3	4	5

### Notes/Considerations

- Given workgroup discussions about balancing simplicity and valid measurement methods, the retrospective self-report approach is recommended.
- This measure can be administered by the Community Paramedic (CP) at the last anticipated visit, or via a follow up confidential phone survey conducted by someone perceived as neutral to the patient. If the former, the CP can provide the survey (electronically or hard copy), and give the patient privacy to complete it confidentially. Completion during a visit would likely maximize the response rate.
- The measure calculation would involve comparing before and after program average scores.

## **MEASURE 2: Reduction in Emergency Department (ED) Visits**

### Data Elements/Questions

For insured patients, community paramedics will request claims data from the patient's insurance regarding the number of patient ED visits, and, for uninsured patients, community paramedics will ask patients to report the *number of ED visits*:

- 1) Six months prior to starting community paramedic visits, and
- 2) During their participation in the community paramedic program.

### Notes/Considerations

- Using claims data as the baseline is a recommended best practice strategy for this metric. If the CHEMS agency is unable to acquire claims data, use patient self-reported data and contact the CHEMS Workgroup for follow-up.
- ED visits is defined as any visit to an ED, regardless of the mode of transport to the ED and whether or not the patient was admitted to the hospital.
- The number of ED visits prior to CP involvement can be *proportionally compared* to the number during CP involvement. While longer-term follow up may be ideal, this is a simple way to begin quantifying differences in ED visits before and during CP program involvement.
- For long-term CHEMS patients, consider capturing ED visit frequency on various schedules (e.g., 30 days, 60 days, 6 months, etc.). In doing this, keep in mind convenience for the practitioner (to facilitate good data collection practices) and meaningful time periods that also support good comparison with short-term patients.
- In the future, it may be advisable to link this measure to hospital or payer records.
- In the future, perhaps track other types of unplanned, "emergency-type" visits (e.g., urgent care or immediate visits to the primary care clinic).

## **MEASURE 3: Expenditure Savings**

### Data Elements/Questions

The calculations used in Measure 2 can be linked to an accepted national average ED visit expenditure to demonstrate an initial estimate of financial savings.

### Notes/Considerations

- 1) It is recommended the Medicaid national average expenditure figure be used.
- 2) It is acknowledged that these calculations will significantly underestimate actual costs, but will provide a starting place for capturing this aspect of CHEMS impact.
- 3) Programming this function into the data reporting tool will automate the calculation based on Measure 2.

#### **MEASURE 4: Patient Connection with Primary Care Provider (PCP)**

##### Data Elements/Questions

Community paramedics will ask patients at the beginning of their work together whether or not they have an established relationship with a PCP. If not, the CP will ask why (e.g., due to not knowing who is available, insurance issues, none available in the community, etc.). For those not connected, the CP will follow up with the patient throughout the CP program to facilitate a PCP connection, and track the outcome at the end of the CP program. For “no” PCP, the CP will capture cases where no PCP is available in the area or if the patient connected with another type of provider or clinic.

##### Notes/Considerations

- This measure is based on the assumptions that:
  - a. Many patients may not be connected to PCPs prior to their participation in the CP program, and
  - b. PCP connection is a best practice in improving patient health outcomes (i.e., a foundation of the SHIP).
- “Established relationship” may mean having a currently practicing PCP identified and having visited the PCP in the last year.
- A new PCP “connection” may be defined as the CP facilitating selection of an available PCP (e.g., one who accepts the patient’s insurance, if any), making a first appointment, and the patient attending that first appointment.

#### **MEASURE 5: Reduction in Medication Discrepancies**

##### Data Elements/Questions

CPs will conduct a medication inventory at each visit with the patient, noting the number of “issues” or discrepancies at each visit. Issues and discrepancies will also be communicated back to PCPs.

##### Notes/Considerations

- 1) Medication discrepancies or “issues” will need to be very carefully defined to ensure alignment across all CPs.
- 2) This measure is based on the assumptions that medication discrepancies are common and have a significant impact on patient health.