

Triple Aim:

1. Improve population health
2. Patient experience of care (satisfaction and quality)
3. Reduce system costs

Experience**Patient Satisfaction**

- *What is the overall value to each patient?
- * Rural patient satisfaction
- * Patient perception of their health pre & post program participation
- * Are patients satisfied with care they received – in a CHEMS setting?
- Satisfaction
- *Patient satisfaction

Goal: *Optimize patient satisfaction scores by intervention*

Values: *TBD*

Evidence-base, Source of Data: *Recommend an externally administered and nationally adopted tool, such as, HCAPHS; Home Healthcare CAPHS (HHCAPHS)*

Patient Quality of Life

- * Patient quality of life
- *Quality of life/patient abilities/ confidence in self-management
- * Patient self-management skills

Outcomes

- * Patient metrics: increased patient confidence in managing own health
- *Improved patient quality of life
- *Does it improve patient’s mental well-being?
- Patient health improvement (Quality of life; fewer ER visits; less pain)
- * Lower stress for caregiver and patient (or raise quality of life)
- *Post program, patient improves in self-reliance
- * Post program improvements in condition
- Lower patient suffering (anxiety, physical, etc.)
- * Health status change – did the change improve the patient’s health status? (based on stakeholder audience)

Goal: *Improve patient self-reported quality of life scores*

Values: *TBD*

Evidence-base, Source of Data: *Recommended tools (EuroQol EQ-5D-5L, CDC HRQoL, University of Nevada-Reno)*

Access

- *Are patients becoming more active in their health care? (PCP use/ preventative care)
- Patient quality of care
- Raise support for patient and caregivers
- Increase connection to community resources for patients
- Patient needs
- * Patient health goals identified and met (patient engagement)

Utilization

EMS Events

- * Number of EMS (911) calls a year
- * Who are the frequent users of the EMS systems that aren't life-threatening calls?
- * Avoidable emergency care without hospitalization
- * How often are services delayed for true emergencies because crews are on non-serious, non-life-threatening calls
- Ambulance transport savings/ utilization

Goal: Reduce rate of unplanned ambulance transports to an ED by enrolled patients

Value 1: Number of unplanned ambulance transports up to 12 months post-graduation

Value 2: Number of unplanned ambulance transports up to 12 months pre-enrollment

Formula: $(\text{Value 1}-\text{Value 2})/\text{Value 2}$

Notes: Monthly run chart reporting and/or pre-post intervention comparison

Hospital ED Visits

- * ED return rate
- * ER utilization
- * Hospital ED visits
- * Reduce ER utilization for high frequency ER users
- * Reduction of ED visits that do not result in hospitalization
- Lower ED visits
- ED visit

Goal: Reduce rate of ED visits by intervention

Value 1: ED visits up to 12 months post-graduation

Value 2: ED visits up to 12 months pre-enrollment

Formula: $(\text{Value 1}-\text{Value 2})/\text{Value 2}$

OR

Value 1: Number of ED Visits avoided in CP intervention patient

Notes: Monthly run chart reporting and/or pre-post intervention comparison

All-Cause Medical Events

- * Reduce unnecessary use of medical system

All-Cause Hospital Admissions

- * Number of ED admissions / year
- *Hospitalization rate
- *Prevented hospitalizations for a certain subset population (diabetic, COPD, asthma, etc.)
- Length of stay
- All-cause re-admittance
- Readmission rates for specific medical problems
- All cause hospital admissions

Goal: *Reduce rate of all-cause hospital admissions by enrolled patients by intervention*

Value 1: *Number of hospital admissions up to 12 months post-graduation*

Value 2: *Number of hospital admissions up to 12 months pre-enrollment*

Formula: *(Value 1-Value 2)/Value 2*

Notes: *Monthly run chart reporting and/or pre-post intervention comparison*

Unplanned 30-Day Hospital Readmissions

- * Unplanned 30-day hospital readmissions
- Lower unplanned 30d hospital readmissions

Goal: *Reduce rate of all-cause, unplanned, 30-day hospital readmissions by enrolled patients by intervention*

Value 1: *Number of actual 30-day readmissions*

Value 2: *Number of anticipated 30-day readmissions*

Formula: *(Value 1-Value 2)/Value 2*

Notes: *Monthly run chart reporting and/or pre-post intervention comparison*

Access

- * PCP use
- Successful connection of patients to PCP (appointment within 7 days)
- Primary care provider use

Cost

- *Focus on costs: fewer ED visits, fewer EMS runs, increase delivered care

Cost

Ambulance Transport Savings (ATS)

Goal: Reduce Expenditures for unplanned ambulance transports to an ED pre and post enrollment or per event

Value 1: Ambulance transport utilization change in measure period X average payment per transport for enrolled patients MINUS Expenditure per CP patient contact

Value 2: Number of patients enrolled in the CP program

Formula: Value 1 / Value 2

Evidence-base, Source of Data: Monthly run chart reporting and/or pre-post intervention comparison

CMS Public Use Files (PUF) for ambulance supplier expenditures or locally derived number

Hospital ED Visit Savings (HEDS)

- * Hospital ED visits (savings)

Goal: Reduce expenditures for ED visits pre and post enrollment or per event

Value 1: ED utilization change in measure period X average payment per ED visit for enrolled patients MINUS Expenditure per CP patient contact

Value 2: Number of patients enrolled in the CP program

Formula: Value 1 / Value 2

Evidence-base, Source of Data: Monthly run chart reporting and/or pre-post intervention comparison

Medical Expenditure Panel Survey (MEPS), or individually derived payer data

All-cause Hospital Admission Savings (ACHAS)

- * Hospital readmission (savings)

- All-cause hospital admissions

Goal: Reduce expenditures for all-cause hospital admissions pre and post enrollment or per event

Value 1: Hospital admission change in measure period X average payment per admission for enrolled patients MINUS Expenditure per CP patient contact

Value 2: Number of patients enrolled in the CP program

Formula: Value 1 / Value 2

Evidence-base, Source of Data: *Monthly run chart reporting and/or pre-post intervention comparison*
Medical Expenditure Panel Survey (MEPS), or individually derived payer data

Total Expenditure Savings

- * Cost per patient per year
- * Total expenditure savings, including: unplanned acute care utilization, PCP visits, usage of ambulance transport
- * Reduction of healthcare costs for the highest utilizers
- * Expenditure savings – lower expenditure from the changed delivery (based on stakeholder audience)
- * Cost savings
- * Monetary (cost savings) of the CHEMS program
 - * Total cost of care
 - * Cost savings
- * Impact of CHEMS on healthcare expenditures (Medicaid, Medicare, CAT fund, private insurance uncompensated care)
- * The hook – show cost savings to stakeholders and health cost breakdown of healthcare neighborhood
- Cost of providing CHEMS in rural areas (travel time, mileage, number of versus patients seen)
 - * Reduction of costs
 - * Cost savings/value added
 - * Value of waste
 - * Does it save money?
 - * Total cost of care
 - * Reduction of cost loss to EMS agencies and hospitals
 - * Expenditures
 - * Can critical access hospitals support CHEMS with their payment model?
 - * Total expenditure
 - * How much will it cost to provide EMS services on call?
 - * Financial impact based on expenditures
 - * Total cost of care
- How much will it save the community?

Goal: *Total expenditure savings for all CP interventions*

Value 1: *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*

Formula: *Sum of Value 1*

Evidence-base, Source of Data: *Monthly run chart reporting and/or pre-post intervention comparison*

Patient Cost Savings

- * Reduce cost to the consumer

Stakeholder – General

Partner Satisfaction ****Desirable Measure****

- * Engage local community stakeholders
- * Involve payers
- * Communication gap analysis
- * Tangible measures
- * Shared expectations from local to state to national level?
- * Meet required metrics (national, state, SHIP, etc.)
- * Process measure and outcome measures
- * Process measures
- * Who will pioneer payment for EMT-level CHEMs in rural Idaho?
- * Will CAHs be harmed financially if CHEMS reduces ER and admissions? (Heavy fee for service today)
- Need to know how to motivate increased collaboration between payers and providers
- Could/should PCMHs employ CHEMS providers, especially in rural areas?

Goal: *Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores*

Value 1: *TBD*

Value 2: *TBD*

Formula: *TBD*

Evidence-base, Source of Data: *Recommend externally administered*

Stakeholder - EMS

Practitioner (EMS/MIH) Satisfaction ****Desirable Measure****

- * CHEMS engagement/job satisfaction

Goal: *Optimize practitioner satisfaction scores*

Value 1: *TBD*

Value 2: *TBD*

Formula: *TBD*

Evidence-base, Source of Data: *Recommend externally administered*

Partner Satisfaction **Desirable Measure**

- * Financial stability (and sustainability)

Goal: *Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores*

Value 1: *TBD*

Value 2: *TBD*

Formula: *TBD*

Evidence-base, Source of Data: *Recommend externally administered*

Primary Care Provider (PCP) Use

Goal: *Optimize Number of PCP visits resulting from program referrals during enrollment*

Value 1: *Number of PCP visits during enrollment*

Formula: *Value 1*

Evidence-base, Source of Data: *Network provider or patient reported*

Specialized Training & Education

- * Will it provide a way to upgrade EMS levels?
- * How are EMS providers educated to take on the role of participating in CHEMs? (Does it follow national curriculum?)
- * Role expansion of career segway
- * Education of service providers/ agencies (for buy-in)
- * EMS scope of practice (current vs. desired) - history of "9-1-1 Response" only

Goal: *Specialized original and continuing education for community paramedic practitioners*

Components: *A specialized educational program has been used to provide foundational knowledge for community paramedic practitioners based on a nationally recognized or state approved curriculum.*

Scoring:

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.

Evidence-base, Source of Data: North Central EMS Institute Community Paramedic Curriculum or equivalent.

Cost/Resources

- * What will it cost an agency to start?
- What's needed to start a CHEMS program?
- Financial projections for the CHEMS agency

Goal: *Total expenditure savings for all CP interventions*

Value 1: *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*

Formula: *Sum of Value 1*

Evidence-base, Source of Data: *Monthly run chart reporting and/or pre-post intervention comparison*

Safety

Primary Care Utilization

- Impact on immunization rates

Goal: Increase the number and percent of patients utilizing a Primary Care Provider (if none upon enrollment)

Value 1: Number of enrolled patients with an established PCP relationship upon graduation

Value 2: Number of enrolled patients without an established PCP relationship upon enrollment

Formula: Value 1 or Value 1/Value 2

Evidence-base, Source of Data: Agency records

Medication Inventory

- *Medication inventory
- * Increased number of medication inventories (cross-referenced with Beers criteria for medical patients) - dementia or delirium?
- Medication inventories reducing ADEs; outcome: decrease hospitalizations, decrease readmissions

Goal: Increase the number and percent of medication inventories conducted with issues identified and communicated to PCP

Value 1: Number of medication inventories with issues identified and communicated to PCP

Value 2: Number of medication inventories completed

Formula: Value 1 or Value 1/Value 2

Evidence-base, Source of Data: Agency records

Unplanned Acute Care Utilization (e.g.: emergency ambulance response, urgent ED visit)

- * Patient safety (adverse outcomes)
- Decrease medication discrepancies

Goal: Minimize rate of patients who require unplanned acute care related to the CP care plan within 6 hours after a CP intervention

Value 1: Number of patients who require unplanned acute care related to the CP care plan within 6 hours after a CP intervention

Value 2: All CP visits in which a referral to Acute Care was NOT recommended

Formula: Value 1/Value 2

Evidence-base, Source of Data: Agency records

Community

Partner Satisfaction ****Desirable Measure****

- * How does the CHEMS program benefit overall livability of that community?
- * Economic impact of CHEMS in rural communities
- * Agency-defined metric based on individual community needs
- * Does it improve population health?
- Increase community awareness

Goal: *Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores*

Value 1: *TBD*

Value 2: *TBD*

Formula: *TBD*

Evidence-base, Source of Data: *Recommend externally administered*

Medical Neighborhood

Partner Satisfaction **Desirable Measure**

- Community resource referral
- Impact on access to services: medical, dental, behavioral health, social)
- Successful referrals for mental health / substance abuse

Goal: *Optimize partner (healthcare, behavior health, public safety, community) satisfaction scores*

Value 1: *TBD*

Value 2: *TBD*

Formula: *TBD*

Evidence-base, Source of Data: *Recommend externally administered*