

December 2014



APPROACHES & MODELS FOR FUNDING MOBILE INTEGRATED HEALTHCARE PROGRAMS

A white paper brought
to you exclusively by

JEMS



Sponsored by

PHILIPS

INTRODUCTION

Some of the most common questions in the development of a Mobile Integrated Healthcare (MIH) strategy relate to financial sustainability. Yes, it's the right thing to do for the patients, and to meet the Institute for Healthcare Improvement's Triple Aim (improved patient experience of care, improved population health and reduced cost of care). But without a sustainable economic model, the programs are difficult to sustain.

How do you develop a program that's economically sustainable over time?

Steven Covey's famous quote, "Begin with the end in mind," has significant applicability for sustainable MIH economic models. Following this concept, before you can determine a sustainable economic model, the program must be able to demonstrate value in the eyes and pocketbook of the funder.

It all starts with the most important first key question: "What problem are we trying to solve?" This question has to be asked numerous times as you develop your model.

The answer to that question will provide you with the program goal and the framework for how you'll measure success or failure of the MIH program. It may also provide you with the framework for economic sustainability.

One way to answer the question is by conducting a community needs assessment done in conjunction with local healthcare providers, social services and other stakeholders to identify the gaps in the local healthcare delivery system that your MIH program may be able to fill.

A hospital partner may find economic value in a program to reduce potentially preventable readmissions they'd be penalized by Medicare for because the fees they collect for the admission may be less than the penalty for their high readmission rate. As such, they may be willing to fund the program.

A managed care organization may fund a program to reduce unnecessary ED visits for their members because it will reduce their costs associated with the ED visits.

In another model, a physician practice that's in a shared risk model with a payer for the total cost of care for patients may be willing to fund an MIH program designed to reduce the costs associated with "observation" admissions, considered an outpatient service by Medicare typically resulting in higher out-of-pocket expenses and fewer Medicare benefits.

In some instances, the agency conducting the MIH program may be the sustainable funder because they see the value in the programs. Consider the governmental agency that decides it's in the best interest of the community and the patient to fund the resources for an MIH program. In addition, an MIH program may be an answer to slowing the growth of their staffing needs to respond episodically to calls they may be able to prevent. In this case, it may simply become a regular line-item expense in their annual budget.

This exclusive white paper highlights several innovative EMS agencies that have successfully implemented MIH programs with various economic models. The highlights include:

- Program goals;
- Interventions implemented to achieve the goals;
- Number and types of personnel used in the interventions;
- The training provided for the personnel;
- Dates the programs began enrolling patients;
- Number of patients/clients enrolled;
- Demonstrated outcomes (if tracked and reported);
- The economic models/funding available for the interventions; and
- Contact information for each program.

These diverse examples can be useful for others embarking on the journey of creating the right economic model for a program they'd like to bring to their community.

By Matt Zavadsky, MS-HSA, EMT; MEMS; Brent Myers, MD, MPH; Brenda Staffan; Mark Stevens & Dan Swayze, DrPH, MBA



DATA ANALYSIS

Below is a comparison of readmission penalty trends for selected hospitals in various communities across the United States to hospitals in communities in which the local EMS systems (shaded in blue) have implemented MIH/Community Paramedicine programs to reduce potentially preventable readmissions.

Name	City	State	FY2013 Readmission Penalty	FY2014 Readmission Penalty	FY2015 Readmission Penalty
Seton Medical Center Austin	Austin	TX	0.35%	0.09%	0.96%
St. David's South Austin Medical Center	Austin	TX	0.63%	0.54%	1.42%
Valley Hospital	Spokane	WA	0.18%	0.11%	2.00%
St. Joseph Medical Center	Tacoma	WA	0.44%	0.23%	0.98%
Peacehealth Southwest Medical Center	Vancouver	WA	0.28%	0.36%	0.83%
Desert Springs Hospital	Las Vegas	NV	0.74%	0.55%	1.08%
Centennial Hills Hospital Medical Center	Las Vegas	NV	0.15%	0.30%	3.00%
St. Vincent's Medical Center	Jacksonville	FL	0.14%	0.15%	2.86%
St. Lucie Medical Center	Port Saint Lucie	FL	0.01%	0.10%	2.36%
Medical College of Virginia	Richmond	VA	0.40%	0.36%	0.69%
CJW Medical Center	Richmond	VA	0.05%	0.04%	1.26%
THR - Fort Worth	Fort Worth	TX	0.59%	0.32%	0.19%
JPS - Fort Worth	Fort Worth	TX	0.08%	0.03%	0.03%
Plaza Medical Center - Fort Worth	Fort Worth	TX	0.30%	0.12%	0.00%
Baylor - Fort Worth	Fort Worth	TX	0.00%	0.00%	0.00%
North Shore University Hospital	Manhasset	NY	1.00%	0.98%	0.55%
Wakemed - Raleigh Campus	Raleigh	NC	0.28%	0.42%	0.38%
Legacy Emanuel Medical Center	Portland	OR	0.10%	0.19%	0.19%
Legacy Meridian Park Medical Center	Tualatin	OR	0.28%	0.39%	0.03%
Barnes Jewish Hospital	St. Louis	MO	0.98%	0.60%	0.39%

CONNECT COMMUNITY PARAMEDIC PROGRAM

Location:

Allegheny County, Pennsylvania

Provider:

Emed Health/Center for Emergency Medicine of Western Pennsylvania

Contact:

Dan Swayze, DrPH, MBA, MEMS
Vice President, Chief Operating Officer
Center for Emergency Medicine of Western Pennsylvania
dswayze@statmedevac.com

Program Goals:

- Reduce potentially preventable hospital admissions and readmissions
- Improve the health related quality of life for enrolled patients
- Connect vulnerable patients to community services to address social factors that may be influencing the patient's health

Program Interventions:

- Community paramedic model
- Focus on patient navigation and patient advocacy
- Assess psychosocial status
- Connect patient to medical, mental health and social services

Personnel:

- Current or former paramedics who live or work in Allegheny County

Training:

- 40 hours of internal training on patient communication, patient safety and advocacy; resources available in the community; motivational interviewing.

Date program enrolled the first patient:

- 9/15/2013

Number of patients enrolled as of October 31, 2014:

- 120

Outcomes:

- 203 patient visits completed
- Measuring outcomes; data to be released soon

How is the program funded?

- \$500,000 grant for 2 years funded through a joint initiative between:
 - University of Pittsburgh Medical Center
 - Highmark Blue Cross/Blue Shield
 - Highmark Foundation

WAKE COUNTY, NC ADVANCED PRACTICE PARAMEDIC PROGRAM

Location:

Wake County, North Carolina

Provider:

Wake EMS

Contact:

Brent Myers, MD, MPH

Director, Medical Director

Wake County Department of Emergency Medical Services

Brent.Myers@wakegov.com

Program Goals:

- Right care, right time, right place, the first time
- Patient navigation once 9-1-1 is activated
- Reduce 9-1-1 calls, particularly for frequent users

Program Interventions:

- Focus on mental health/substance abuse issue and falls in assisted living facilities
- Care plans with specifically designated hospitals for frequent users (patients with four or more calls via 9-1-1 in any 30-day period)
- Use of screening tools and protocols to evaluate patients in the field for suitability for alternative destination or treatment
- There are no advanced skills or changed scope of practice, there is only advanced decision making

Personnel:

- Advanced practice paramedics from within the EMS system

Training:

- 96 hours of didactic training
- Several clinical rotations

Date program enrolled the first patient:

- January 2009

Number of patients enrolled as of October 31, 2014:

- Falls program: 592 patients over two years in 12 assisted living facilities

Outcomes:

- Enrolled 1,649 patients with the primary complaint of substance abuse/mental health
 - 392 patients avoided ED visits
- Evaluated 325 patients after simple falls
 - In partnership with the primary care group Doctors Making Housecalls, safely prevented unnecessary transport to the ED in 200 of those patients

How is the program funded?

- Internally funded as part of operational budget

REMSA COMMUNITY HEALTH PROGRAM

Location:

Reno, Nevada

Provider:

Regional Emergency Medical Services Authority (REMSA)

Contact:

Brenda Staffan
HCIA Project Director
Regional Emergency Medical Services Authority
bstaffan@remsa-cf.com

Program Goals:

- Improve 24/7 access to assessment, triage, referral by navigating patients to appropriate levels of care
- Improve overall patient satisfaction and quality of care
- Lower the total cost of care by reducing ED visits, ambulance transports, all-cause admissions and readmissions

Program Interventions:

REMSA's Community Health Programs (CHP) are creating new care and referral pathways that assure patients who have entered the 9-1-1 emergency medical services system with urgent, low-acuity medical conditions receive the safest—and most appropriate—levels of quality care at a lower overall cost. There are three interventions:

1. Nurse Health Line: Nurse Navigators provide 24/7 assessment, clinical education, triage and referral to healthcare and community services via a non-emergency number available to all Washoe County residents.
2. Community Paramedicine: Specially trained Community Health Paramedics perform in-home delegated tasks to improve the transition from hospital to home, perform point of care lab tests and improve care plan adherence.
3. Ambulance Transport Alternatives: Following an advanced assessment in the field, paramedics provide alternative pathways of care for 9-1-1 patients, including transport of 9-1-1 patients with low-acuity medical conditions to urgent care centers and clinics, transport of inebriated patients directly to the detoxification center and transport of psychiatric patients directly to a mental health hospital.

Personnel:

- Nurse Navigators: 8
- Community Health Paramedics: 8
- Ambulance paramedics performing advanced assessments in the field for ambulance transport alternatives: 390

Training:

- Nurse Navigators: 56 hours for emergency medical dispatch and emergency care nurse system training
- Community Health Paramedics: 150 hours for community paramedic training
- Ambulance paramedics: 4 hours for advanced assessment training

Date program enrolled the first patient:

- Nurse Health Line launched October 2013
- Community Paramedicine launched June 2013
- Ambulance Transport Alternatives launched December 2012

REMSA COMMUNITY HEALTH PROGRAM - CONTINUED

Number of patients enrolled as of October 31, 2014:

Preliminary results, based upon data from December 2012 to June 2014, include:

- 15,941 Nurse Health Line calls
- 2,024 Community Paramedic visits
- 574 Alternative transports

Outcomes:

These preliminary outcomes are initial estimates. REMSA continues to test and confirm the methodology and the data sources. The savings estimates will be updated as new data is identified and our methodologies are validated. Preliminary results, based upon data from December 2012 to June 2014, include:

- On target patient satisfaction, patient safety and quality metrics
- 1,795 ED visits avoided
- 354 ambulance transports avoided
- 28 hospital readmissions avoided
- \$7.9 million program savings (charges)
- \$2.8 million Program savings (payments)

How is the program funded?

REMSA is the recipient of a three-year \$9.8 million grant which is part of round one of the federal Health Care Innovation Award grant program. The project was supported by grant number 1C1CMS330971 from the Department of Health and Human Services, Centers for Medicare & Medicaid Services. REMSA's goal is for these programs to reduce total patient care expenditures by \$10.5 million over three years.

Location:

Portland, Oregon

Provider:

Tualatin Valley Fire & Rescue

Contact:

Mark Stevens

Division Chief

Tualatin Valley Fire & Rescue

Mark.Stevens@tvfr.com

Program Goals:

- Decrease 9-1-1 utilization, ED admissions and hospital readmissions
- Institutional Review Board (IRB)-approved study

Program Interventions:

- Paramedic home visits within 48 hours of hospital discharge for individuals identified by hospital and ED case managers at high risk for frequent 9-1-1 use, ED admission and hospital admission based on prior hospital utilization patterns
- Follow patient for at least 30 days and up to 90 days per study protocol
 - Some patients followed longer than 90 days at the discretion of the paramedic
- During the home visit the paramedic provides a patient assessment to include vital signs, pulse oximetry, capillary glucose monitoring and ECG as needed
 - Other services include discharge summary review, chronic disease management overview, medication evaluation and compliance, nutrition availability and dietary status, and home safety and fall risk assessments.
- Paramedic works with primary care provider (PCP), home health (if assigned) and other community resources to meet patient needs

Personnel:

- Coordinator (RN/paramedic): 1
- Community Paramedics: 4

Training:

- 24 hours of chronic disease management training (congestive heart failure, chronic obstructive pulmonary disease, diabetes, renal failure, pneumonia, drug addiction), community resource utilization, ethics, case review and scenarios

Date program enrolled the first patient:

- 12/19/2013

Number of patients enrolled as of October 31, 2014:

- 94 enrollments
 - 66 patients who consented to home visits
 - 28 patients who declined the service or were unable to be contacted

Outcomes:

- Study closed to enrollment on October 1, 2014.
- Data is being analyzed for presentation and publication
- Study was approved by the IRB of the partnering health care system
- 288 home visits completed

How is the program funded?

- Internally funded pilot project

Location:

Fort Worth, Texas

Provider:

Area Metropolitan Ambulance Authority (MedStar)

Contact:

Matt Zavadsky, MS-HSA, EMT
Director of Public Affairs
MedStar Mobile Healthcare
MZavadsky@medstar911.org

Program Goals:

- Decrease 9-1-1 utilization, ED visits, observation admissions, hospital readmissions and hospice disenrollments

Program Interventions:

- 9-1-1 Nurse Triage for low/no-acuity 9-1-1 callers
- Mobile healthcare intervention for high EMS and ED utilizers
- Mobile healthcare intervention for patients at high risk for congestive heart failure (CHF) readmission
- Critical care paramedic (CCP) intervention for patients at high risk for 9-1-1 activation for hospice-related condition
- CCP intervention for patients eligible for observation admission, but sent home with CCP follow-up visit at home and assurance of PCP appointment compliance
- CCP intervention for home health agency patients at risk for calling 9-1-1, or needing an after-hours episodic visit.

Personnel:

- Mobile Healthcare Paramedics: 2
- Critical Care Paramedics: 9
- RNs: 3
- Program Manager: 1
- Administrative Assistant: 1

Training:

- Mobile Healthcare Paramedic: 160 hours
- 9-1-1 Triage Nurse: 64 hours

Date program enrolled the first patient:

- High Utilizer Group: July 2009
- CHF Readmission Avoidance: June 2010
- 9-1-1 Nurse Triage: May 2012
- Observation Admission Avoidance: August 2012
- Hospice Revocation Avoidance: September 2012
- Home Health Program: February 2014

Number of patients enrolled as of October 31, 2014:

- High Utilizer Group: 249
- CHF Readmission Avoidance: 131
- 9-1-1 Nurse Triage: 2,268
- Observation Admission Avoidance: 104
- Hospice Revocation Avoidance: 155
- Home Health Program: 195

Outcomes:

- Total expenditure savings: \$3.7 million
- High Utilizer Group (97 enrolled patients with 2+ years of utilization statistics)
 - 45.3% reduction in 9-1-1 and ED use during 90-day enrollment
 - 75.3% reduction in 9-1-1 and ED use post-graduation
- CHF Readmission Avoidance
 - 83.3% reduction in anticipated 30-day readmission in enrolled patients
- 9-1-1 Nurse Triage
 - 39.7% of calls referred to 9-1-1 Triage Nurse did not get an ambulance response
 - 37.8% of calls referred to the 9-1-1 Triage Nurse did not go to the ED
- Observation Admission Avoidance
 - 104 patients enrolled, 3 had a repeat ED visit prior to PCP appointment
- Hospice Revocation Avoidance
 - 89.7% reduction in anticipated revocations in enrolled patients
- Home Health Program
 - 33.3% reduction in ED transports for enrolled home health patients who called 9-1-1
 - No ED visits for episodic requests from the home health agency

How is the program funded?

- High Utilizer Group
 - Enrollment fee paid by one hospital through Medicaid 1115 waiver project
 - Patient contact fee paid by one hospital for referred patients
- CHF Readmission Avoidance
 - Enrollment fee paid by one hospital through Medicaid 1115 waiver project
- 9-1-1 Nurse Triage
 - First nurse jointly funded by MedStar and three hospital partners
 - Second nurse funded by hospital paid payments per 9-1-1 call sent to the nurse
- Observation Admission Avoidance
 - Enrollment fee paid by independent practice association for referred patients
 - Enrollment fee paid by one hospital through Medicaid 1115 waiver project
- Hospice Revocation Avoidance Program
 - Per enrolled patient/per-month fee paid by the hospice agency
- Home Health Program
 - Patient contact fee paid by the home health agency