LEGISLATIVE REPORT TO THE GENERAL ASSEMBLY

Regarding

Mobile Integrated Health

March 1, 2019

Raul Pino, MD, MPH, Commissioner

Raffaella "Ralf" Coler RN, M.Ed., Paramedic
Director, Office of Emergency Medical Services
Chair of the Mobile Integrated Health Workgroup

State of Connecticut
Department of Public Health
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Mobile Integrated Health Workgroup Members

Name	Organization	Appointment
Gregory Allard	American Ambulance Service, Inc.	Chairperson of the Connecticut Emergency Medical Services Advisory Board (CEMSAB)
Chris D. Andresen	Department of Public Health	Commissioner of Public Health
Mary Beth Barry	University of Connecticut Health	Advanced Practice Registered Nurse (APRN)
Bruce B. Baxter	CEO New Britain EMS, Inc., President, Central Connecticut Paramedic Education Program Consortium, Immediate Past President, CT EMS Chiefs Association	Representative of emergency medical services providers (3 of 3), one of whom shall be a designee of the Connecticut Emergency Medical Services Chiefs' Association
Joshua Beaulieu MBA, LP	Manchester Fire-Rescue-EMS	Representative of a fire department EMS provider
Representative Dorinda Borer	Connecticut General Assembly	Public Health Committee Vice Chair
Michael Bova	Ambulance Service of Manchester, LLC	Appointed by Public Health Committee Chair
Kristin Campanelli, JD	Connecticut Department of Insurance	Commissioner of Insurance
Raffaella Coler (Chair)	DPH, Office of Emergency Medical Services	Director of the Office of Emergency Medical Services

Jennifer Granger	United Community & Family Services (UCFS)	Representative of Community Health Center Association of Connecticut (CHCACT)
Susan Halpin	Robinson & Cole	Representative of the Connecticut Commercial Health Insurance Industry
Shaun Heffernan	Branford Fire Department - EMS	Appointed by the Public Health Committee Vice Chair
Richard Kamin, MD	DPH, Office of Emergency Medical Services	Chairperson of Connecticut EMS Medical Advisory Committee (CEMSMAC)
Jeannie M. Kenkare, DO	PhysicianOne Urgent Care	Representative from Primary Care Provider that identifies as urgent care facility
David D. Lowell, BSBA, LP	Chief Operating Officer, Hunter's Ambulance Service; President, Association of Connecticut Ambulance Providers	Representative of emergency medical services providers (1 of 3), one of whom shall be a designee of the Association of Connecticut Ambulance Providers with background in providing ambulance services in a rural area of the state
Maybelle Mercado-Martinez, MD	Hartford Behavioral Health	Licensed Behavioral Health Professional
Kimberly A. Sandor	Connecticut Nurses' Association	Representative of the Connecticut Nurses Association
James Santacroce	Middlesex Hospital	Representative of emergency medical services providers (2 of 3), with background in providing ambulance services in an urban area of the state
Chris Santarsiero, MBA	VITAS Healthcare	Representative of an agency providing hospice care
William Schietinger,	American Medical Response	Chair of the Council of Chairpersons for the Regional EMS Council, Vice Chair of the Connecticut Emergency

Carl J. Schiessl, JD	Connecticut Hospital Association (CHA)	Representative of Connecticut Hospital Association (CHA)
Kelly Sinko	State of Connecticut, Office of Policy & Management	Secretary of the Office of Policy and Management (OPM)
Senator Heather Somers	Connecticut General Assembly	Public Health Committee Chair
Representative Jonathan Steinberg	Connecticut General Assembly	Public Health Committee Chair
Tracy Wodatch, RN	Connecticut Association for Healthcare At Home	Representative of the Connecticut Association for Healthcare at Home
Michael F. Zanker, MD	Middlesex Hospital	Representative of the Connecticut College of Emergency Physicians (CCEP)
Robert W. Zavoski, MD	Department of Social Services	Commissioner of Social Service

Commonly Used Terms

CEMSAB – CT EMS Advisory Board

CEMSMAC - CT EMS Medical Advisory Committee

EMS – Emergency Medical Services

"Emergency medical service system" means a system which provides for the arrangement of personnel, facilities and equipment for the efficient, effective and coordinated delivery of health care services under emergency conditions; (CGS section 19a-175)

MIH – Mobile Integrated Health

OEMS – Department of Public Health's Office of Emergency Medical Services

Paramedic - means a person that carries out (A) all phases of cardiopulmonary resuscitation and defibrillation, (B) the administration of drugs and intravenous solutions under written or oral authorization from a licensed physician or a licensed advanced practice registered nurse, and (C) the administration of controlled substances, as defined in section 21a-240, in accordance with written protocols or standing orders of a licensed physician or a licensed advanced practice registered nurse; (CGS section 20-206jj – Paramedicine)

PSA – Primary Service Area – Means a specific geographic area to which one designated emergency medical services provider is assigned for each category of emergency medical response services.

PSAP – Public Safety Answering Point – The entity that receives 911 calls and transmits the requests for help to law enforcement, fire department, medical, ambulance, or other EMS services

Triple Aim - The Institute for Healthcare Improvement, (IHI) description to an approach for optimizing health system performance. It is IHI's belief that new designs must be developed to simultaneously pursue three dimensions, which they call the "Triple Aim" as follows:

- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care.

Executive Summary

Mobile Integrated Healthcare (MIH) is a patient-centered approach to the provision of 24-hour/7 day needs-based care provided in an at-home or mobile setting. MIH integrates the scope of practice of licensed paramedics with the services of existing healthcare stakeholders in the provision of acute care, chronic care, and preventive care. MIH leverages the availability of, and accessibility to, existing healthcare resources (paramedics) functioning within the Emergency Medical Services (EMS) system, who are either licensed or certified by the State of Connecticut Department of Public Health (DPH) and performing responsibilities within an approved scope of practice under the medical direction of a sponsor hospital.

MIH is not intended to replace any existing community service agency, but rather integrate with an array of healthcare and social service partners to improve the health of the community and reduce costs.

Development of collaborative MIH programs is intended to help break down silos in healthcare delivery models by coordinating communication pathways and care plans among a variety of community healthcare providers and agencies to deliver a broad spectrum of patient-centered preventive, primary, specialty, and rehabilitative care outside of medical facilities. These programs address community needs and fill gaps to meet the Institute for Healthcare Improvements Triple Aim.

MIH programs also leverage technology to triage and connect non-urgent 9-1-1 callers with relevant caregivers and assistance instead of dispatching an ambulance crew.

Background

Section 45 of Public Act 17-146 required the Department of Public Health (DPH), in consultation with the Departments of Social Services and Insurance, to convene a twenty-four member Workgroup to review specific tasks related to the implementation of a mobile integrated health (MIH) program that would allow a paramedic to provide community-based healthcare within their scope of practice. Additionally, the legislation required the Department to make recommendations regarding transportation of a patient to a destination other than an emergency department.

The Public Act identified several tasks for the MIH Workgroup to review and include as part of a report to the Committees having cognizance over matters related to public health, human services, and insurance.
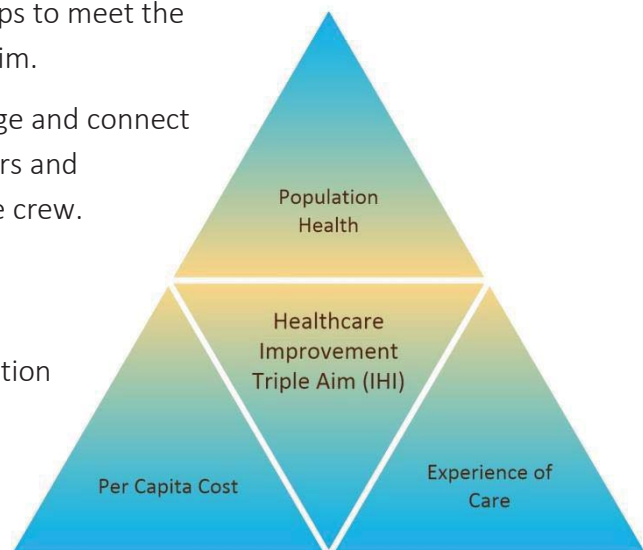
These tasks include identifying:

- Areas in the state that would benefit from an MIH care program due to gaps in the availability of healthcare services

- Any patient care interventions that a paramedic may provide within a paramedic's scope of practice

- Any additional education or training that paramedics may need to provide community- based healthcare

- Any potential savings or additional costs associated with the provision of healthcare coverage for community-based healthcare that an insured or the Medicaid program may incur

- Any potential reimbursement issues related to healthcare coverage for the provision of community-based healthcare by a paramedic

- Minimum criteria for the implementation of the MIH care program

- Any statute or regulation that may be impacted by the implementation of the MIH care program

- Any successful models for an MIH care program implemented in other areas of the country.

For full language of the workgroup as identified by Public Act 17-146, see Appendix A.

The Department convened the first meeting of the MIH Workgroup on September 5, 2017. Subsequently, regular meetings took place.

Mobile Integrated Health Workgroup

The Workgroup's discussion focused on identifying gaps in the healthcare system that could be addressed by an MIH program as demonstrated by the needs of the community.

The members reviewed and provided comments on a draft MIH program application that was created by DPH and shared with the Workgroup for discussion purposes.

The group discussed a review process for approving applications and is recommending the EMS organizations go through a need for service model, which is consistent with the current Department EMS approval processes.

The MIH Workgroup is recommends five different MIH program concepts for implementation in Connecticut including:

- Readmission Avoidance

- ED/EMS High Utilizer Group Reduction Program

- Hospice Revocation Avoidance

- 9-1-1 PSAP Nurse Triage Interface for low priority symptom callers as alternative to 911 EMS response

- Wellness and prevention initiatives

Reimbursement for treat and non-transport

The ability for an EMS organization to bill an insurance company or accountable care organization for the "treat and non-transport" of patients was also deliberated. This is a critical issue to be considered because under current insurance reimbursement guidelines, when a patient refuses to be transported, or may not be in need of transport to a hospital, an EMS organization is not eligible for reimbursement with one exception in Connecticut. Effective April 01, 2002, Medicare recognized that payment will be authorized for a beneficiary who was pronounced dead after the ambulance was dispatched but prior to the time the beneficiary was loaded into the vehicle and the transport began. In this case Medicare will reimburse the ambulance provider or supplier a basic life support (BLS) emergency rate with no ancillary charges (CMS Manual, Pub. 100-02, Chapter 10, Section 10.2.6.).

Additionally, in mid-2017, Anthem Blue Cross announced that effective January 1, 2018, it has initiated a reimbursement policy change in 14 states that is aimed at shifting the fee-for-service (volume based) method of reimbursing ambulance providers to a more value based form of reimbursement by payment for certain treat and non-transport types of ambulance calls. The reimbursement will be offered for HCPCS A0998-coded 9-1-1 responses in California, Colorado, Connecticut, Georgia, Indiana, Kentucky, Maine, Missouri, Nevada, New Hampshire, New York, Ohio, Virginia, and Wisconsin.

The DPH Office of Emergency Medical Services (OEMS) sets maximum allowable ambulance rates for all EMS services in Connecticut. Presently, OEMS does not have a rate defined as treat and non-transport. Consequently, an EMS organization would not be able to bill Anthem until rates are established by OEMS.

Discussion took place regarding the cost implications to consumers due to increased requirements on the insurance companies which could raise premiums on consumers who have insurance which covers the treat and non-transport option, and creating a separate charge to consumers who do not have insurance that covers treat and non-transport as part of their insurance policy. The group also discussed cost implications to Medicare/Medicaid and patients, which will be covered in further details under the reimbursement subcommittee.

Transportation to a destination other than an emergency department

The Workgroup had extensive discussion regarding transportation of a patient to healthcare settings (including urgent care centers and community health centers) other than a hospital

emergency department. The MIH Workgroup supports transporting a patient to a licensed urgent care center or community health center, as an alternative destination, provided there is active oversight by the sponsor hospital, established sponsor hospital protocols are in place and an agreement exists to formalize the transportation of patients to an urgent care center or community health center (alternate destination).

Ultimately, destination decision making should be based on getting the right patient, to the right place, at the right time. Information was provided from the CEMSAB MIH subcommittee regarding efforts that would allow urgent care center as an alternative destination. Currently a licensed ambulance service is working on a program where patients will be triaged to the urgent care with direction from the sponsor hospital to field providers.

The DPH would not be able to provide information regarding the number of patients who might benefit from transportation to an alternative destination or potential cost savings without data that must be collected from EMS organizations and other State stakeholders.

The MIH Workgroup concluded that alternative destination decisions made under the oversight of a sponsor hospital should be clinically appropriate, patient-centered, and require a partnership among all the pertinent stakeholders identified in the application process.

MIH Workgroup Recommendations

Application approval

The MIH Workgroup discussed the method to approve applications for proposed MIH programs and allow for input from communities that may be impacted. The discussion focused on three main concepts:

- Requiring an EMS organization to complete the need for service process (Certificate of Need), whereby a hearing officer identified within the Department would conduct a public hearing and, based on the information presented, make the determination for approval

- Requiring the CEMSAB and CEMSMAC to determine the approval of the MIH program

- A third option is to combine the above requirements

The MIH Workgroup's final recommendation for the application process is to support the need for service process as described above.

MIH Concepts

The MIH Workgroup recommends to the Commissioner of Public Health five different MIH program concepts for an EMS organization to implement within their primary service area upon approval from the DPH. These concepts include:

Readmission avoidance: For populations at high risk for readmission to a hospital used in conjunction with, and as a supplement to, the home health system

ED/EMS High Utilizer Group Reduction Program: Defined as frequent utilizers of EMS activation for access to non-emergent or primary care through EMS alone, or via EMS to an Emergency Room.

Each MIH program interested in addressing high ED/EMS utilization in their community would be required to develop a standard for identifying the high utilizers who may benefit from a MIH intervention in collaboration with stakeholder beneficiaries, including, but not limited to the EMS sponsor hospital, federally qualified health center, home health, behavioral health, community social services. Each approved high utilizer MIH program would include the following components:

- EMS Sponsor Hospital Medical Direction/Control oversight and participation
- Integration any healthcare service providers impacted in the PSA service areas for the specific patient population impacted
- Establish patient enrollment criteria
- A quality improvement program that includes established key performance indicators for clinical care and customer satisfaction
- The ability to produce data demonstrating the impact of services provided on the specific patient population being served.

Hospice revocation avoidance

Community paramedicine and mobile integrated healthcare enhance the quality of care provided to terminally-ill patients at home. Since 95% of overall hospice days of care are provided in the residential setting, these new services ensure the most rapid response to patients in crisis, reduce revocations from hospice services, and assure safe transitions. Community paramedics trained in identifying terminally-ill symptoms can refer patients frequently utilizing the 9-1-1 system for a hospice assessment that can lead to better outcomes at the end-of-life.

Thirty states already utilize this modern delivery of care. Data show that these stronger partnerships have also helped hospice patients stay within their chosen plan of care, reduce 9-1-1 calls, and eliminate most emergency department visits.

Background

Hospice patients and their families can get anxious when symptoms intensify. Although hospice nurses educate the patient and family that they are available 24 hours, seven days a week, sometimes families call 9-1-1 out of panic. Allowing ambulance providers to work more closely with hospices helps deliver higher quality care for patients in these situations.

Mobile Integrated Healthcare integrates the rapid response of ambulance services to stabilize urgent situations for hospice patients and bring comfort to patients and families while the hospice team is enroute.

Mobile Integrated Healthcare prevents or circumvents 9-1-1 calls from anxious family members to keep patients at home or out of the Emergency Room; avoiding costly, uncomfortable, and unnecessary treatments and hospice revocations. Currently in the Connecticut, revocation avoidance strategies are deemed as true unmet needs for families based on the response time of the hospice nurses.

Universal improvements and standardization of discharge plans

According to Medicare Guidelines, a hospice revocation is a beneficiary's choice to no longer receive Medicare covered hospice benefits. To revoke the election of hospice care, the beneficiary/representative must give a signed written statement of revocation to the hospice. No standardized hospice revocation form exists.

- The statement must contain the effective date of the revocation.
- A verbal revocation of benefits is NOT acceptable.
- The individual forfeits hospice coverage for any remaining days in that election period.
- An individual may not designate a revocation effective date earlier than the date the revocation is made.
- The day of revocation is a billable day.
- The hospice cannot revoke the beneficiary's election, nor can the hospice demand the beneficiary revoke his/her election.

Upon revoking the election of Medicare coverage of hospice care for a particular election period, an individual resumes Medicare coverage of the benefits waiver when hospice care was elected. In cases where the individual was enrolled in a Medicare Advantage (MA) Plan at the time they elected hospice, all Medicare claims will continue to be paid by the fee-for-service contractor (A/B MAC) until the first day of the month following the revocation.

An individual may, at any time, re-elect to receive hospice coverage, provided that the beneficiary is otherwise entitled to hospice care benefits.

A revocation is the beneficiary's choice rather than the hospice's choice, and the hospice cannot revoke the beneficiary's election. In addition, the hospice cannot request nor demand the beneficiary revoke his/her election.

Recommendations

- Explore stronger partnerships between the state's hospices and ambulance providers to ensure the most rapid response to patients in crisis, reduce revocations from hospice services, and assure safe transitions.

- Provide disease-based and general Medicare Hospice criteria education to ambulance providers to better assess the needs of terminally-ill patients frequently utilizing the state's 9-1-1 system. One general Medicare and Medicaid Hospice criterion is multiple emergency room visits or hospitalizations.

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Nurse triage: Nurse Health Line—non-emergency phone line for 24/7 access to nurse navigators that assess, triage and refers.
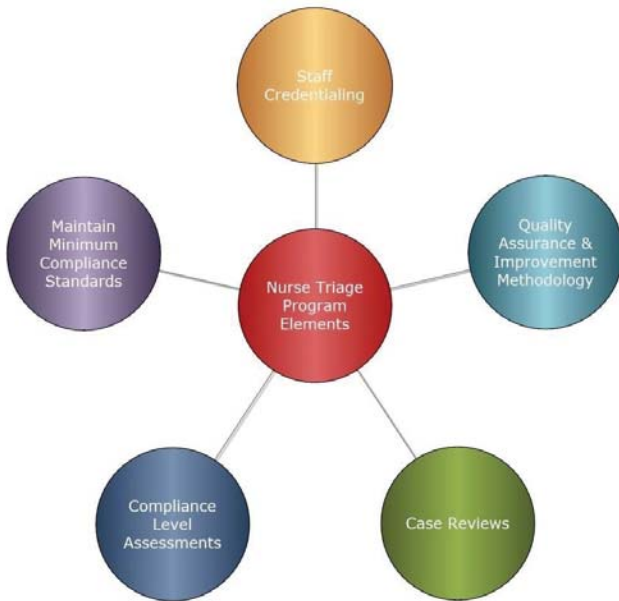
This could be a group of low-acuity users of the 9-1-1 system who access care through the emergency department or patients at-risk for readmission that do not necessarily need emergency department transport.

Such a program must be structured and integrated with Emergency Medical Dispatch programs that base their protocols on clinical outcomes.

Wellness and prevention initiatives: would allow a paramedic to engage in non-emergent care in their community. These programs include participation in vaccination clinics and other wellness screenings where paramedics serve as adjunct practitioners within a system design that permits, within protocols, to work alongside other healthcare professionals in various community health scenarios

The MIH Workgroup has determined that, because community needs vary, programs would vary based on identified gaps in care. The MIH Workgroup recommends that EMS organizations conduct a community needs assessment to identify gaps prior to submitting an application to implement an MIH program.

The MIH Workgroup recommends that policies be developed to allow for the transportation of a patient to an alternative destination, such as an urgent care.

Lastly, the MIH Workgroup recommends legislation to address any statutory issues with transporting a patient to an alternative designation, rate and payment settings, and statutory modifications to the statutes in Chapter 518a, 386d, 384d, and 378, along with the definition of "EMS system" to encompass the full scope of the current EMS setting.

Role of DPH OEMS
The implementation of an MIH program would fall under the purview of the Department of Public Health and Office of Emergency Medical Services. In Connecticut 57 certified and 16 licensed advanced life support EMS organizations are authorized to provide paramedic level services that could initiate an MIH program, with one or more concepts in their communities.

The implementation of a program would require the Department to:

- Create the criteria for an EMS organization to participate in an MIH program, which includes the application process

- Coordinate with the CEMSMAC to develop policies for paramedics participating in MIH programs

- Coordinate with statewide EMS committees to broaden MIH programs that could have an impact on all of Connecticut

- Determine what, if any, additional educational requirements would be needed

- Review and approve educational programs

- Set requirements for continuing education

- Collect, track, and monitor data reported from MIH programs

- Assist in, and develop as needed, quality assurance and quality improvement initiatives

- Provide guidance and support as-needed to community partners

- Conduct complaint investigations, as needed

The application process

For each MIH concept, the EMS organization applying would be required to provide a general program description, including how the program will increase overall patient health, improve patient satisfaction, and decrease cost. To ensure the safe delivery of care to a patient, the application also will include a detailed patient interaction plan outlining how patients enter the system, how patient information would be secured, and healthcare records would be documented for continuity of care purposes.

When developing an MIH program, the organization would be required to ensure that their concept or model does not replace current practices, change the EMS scope of practice, diminish current programs in place, or decrease the level of care provided to the patient. Attached is the need for service application, *Appendix B*, which includes process requirements to notify the community and impacted primary service area responders regarding the pending application and hearing process.

Needs Assessment

The Department would require an EMS organization submitting an application to conduct a community needs assessment that identifies healthcare gaps addressed by the MIH program. The assessment would include data that supports evidence of the gaps to be addressed by the MIH program. Additionally, the application process would include a plan for collecting ongoing data that will enable the Department to determine if the program addresses needs identified by the community needs assessment.

The EMS organization will be required to submit a renewal application to the Department in a timeframe to be determined. As part of the renewal application, the organization must provide evidence that supports the continued need of the MIH program.

Treat and non-transport of a patient

As part of the MIH legislation, the Department was asked to study the impact of creating a rate to allow an EMS organization to bill for patient treatment and non-transport. Some considerations around setting this new rate include the potential for:

- Increasing consumer costs for any individual that is not covered by Anthem, as any *treat and non-transport* service could now be charged, potentially leading to out-of-pocket consumer costs

- Increasing overall costs to the healthcare system by adding a new fee-for-service rate

- Generating overall savings for the healthcare system and decreasing consumer costs by substituting lower cost services for avoidable high-cost hospital and emergency department services

Importantly, on January 1, 2018, Anthem BlueCross BlueShield began reimbursing under *treat and non-transport* codes, allowing EMS providers reimbursement for certain care when they did not transport a patient to the emergency department. Due to the Connecticut's ambulance rate setting process this new policy has not yet been implemented.

Legislation and regulation revisions

No paramedic scope of practice revisions to provide community-based healthcare are needed pursuant to CGS section 19a-179a. This statute's authority allows for the Department, in collaboration with the CEMSAB, to develop policies for paramedic personnel and is sufficiently broad to encompass the authority for a paramedic to participate in an MIH program endorsed by their sponsor hospital medical control. Additionally, the CEMSAB and the Department, under this statute, may develop any additional educational requirements for a paramedic to carry out an expansion of their scope of practice, if needed.

To permit an EMS organization to provide services that do not necessarily fall within the 9-1-1 system to implement a MIH program will require revisions to current statutes. Statutes and regulations that govern emergency medical services organizations and providers do not allow them to function outside the 911 system, other than to provide interfacility transportation. Additionally, statutory changes are needed to clarify how an MIH program can be permitted so long as such program conforms with, and is approved through DPH. This includes licensed and certified EMS personnel providing care and services within their approved scope of practice as part of an EMS organization.

Since a MIH program would function outside the duties of emergency situations, several sections of the statutes must be revised. This would require a further review of chapters 518a, 386d, 384d, 378, statutes governing telehealth and the regulations that fall under section 19a-179, as well as, discussions with the agencies of cognizance. When appropriate the DPH will be available to work on developing legislative language.

Transportation to an alternative destination other than an emergency room

The DPH supports the concept of transporting a patient to an alternative destination when emergency department level of care is not needed. However, we recognize the challenges to implementing this concept.

The ability to transport a patient to a destination other than an emergency room would not require a statutory or regulation revision, though this concept could not be implemented until policies have been developed. Once policies are in place the Department, in collaboration with CEMSAB and the EMS organization's sponsor hospitals, must confirm communication is in place to ensure the patient is transported to the most appropriate setting based on the patient's clinical needs.

Presentations to the Mobile Integrated Health Workgroup

To establish a baseline understanding of the various healthcare and related disciplines participating in, and considered part of the MIH stakeholder group, the MIH Workgroup heard several presentations from a number of organizations. Below is a summary of the presentations. (To view the complete presentations and other documentation regarding EMS and MIH programs, please click on the link to the Department's website regarding Legislative MIH Workgroup Presentations and Documents.)

Department of Public Health Presentation

On October 7, 2017 the DPH and members of the MIH Workgroup presented information regarding statewide and regional EMS organizations in Connecticut; scope of practice for paramedics and EMS organizations in Connecticut; and support for paramedic-based MIH programs. Discussion addressed the current EMS Advisory Board, the EMS Advisory Board's subcommittees, Connecticut Emergency Medical Services Medical Advisory Committee, Trauma Sub-committee, the different EMS regions and their regional councils. The current scope of practice and educational requirements for paramedics and other EMS personnel was also a topic.

Hospitals Presentation

On October 7, 2017, the MIH Workgroup hospitals member reported on the six community care teams already in place in Connecticut. These teams consist of local medical, behavioral health, and social service providers utilizing a wraparound approach to provide patient-centered care

through multiagency partnership and care planning and traditional and non-traditional support and services provided at no cost to the patient. These teams have a diverse group of stakeholders that include shelters, hospitals, family and children support agencies, behavioral health agencies, probation, police departments, public defender's office, and more. Their goal is to improve patient health, reduce overcrowding in emergency departments, relieve pressure on community providers, reduce emergency department visits, and demonstrate regional cooperation.

Community Health Presentation

On November 7, 2017, the MIH member representing the Middlesex County Community Care Team detailed information about their current program "The Impact of Care Coordination Across Providers." Fourteen agencies participating in this program include Middlesex Hospital, several behavioral health facilities, a soup kitchen, community health centers, and case/care management agencies. Patient relationships assigned to targeted caregivers are determined by a review of emergency department visits. These targeted caregivers build relationships with the patients and help them obtain services based on their needs. The care teams meet on a regular basis to discuss and manage care for patients in the program. Data collected from patients in the program include demographics and the number of emergency department and inpatient visits pre- and post-intervention in addition to the cost or losses to care for that patient.

Insurance Department Presentation

On November 7, 2017, the Department of Insurance presented information regarding current laws for an EMS organization to obtain reimbursement, the definition of an insurance mandate, and how mandate's costs are calculated, both in terms of premiums for insurance carriers as well as potential cost to the state under the ACA. They also provided information on the different sections within the Department of Insurance that review rates for individual and group HMOs and review consumer complaints.

EMS Advisory Board Presentation

On November 7, 2017, the MIH member from the Connecticut EMS Advisory Board presented on the 100-plus existing agencies with MIH or community paramedicine programs in 33 states. We learned that Connecticut should work within the current EMS 9-1-1 system to determine if overlap of services between the primary service areas will occur. We also learned to explore any necessary educational requirements and statutory or regulatory revisions. Data should be collected to determine the frequency of non-emergency transport services to a hospital along with reoccurrences.

Emergency Medical Dispatch Presentation

On November 21, 2017, a presentation on 9-1-1 dispatch centers covered the steps that are taken when a person calls 9-1-1 and the communication and coordination between the 9-1-1 dispatcher, the EMS organization, EMS personnel, and hospitals. The dispatch process varies

across the state; there are 169 towns and 100 public safety answering points (PSAPs). Under CGS Chapter 518a Sec. 28-25b., each PSAP is required (as of July 01, 2004) to provide Emergency Medical Dispatch (EMD), which requires three elements: triage of the call to determine the nature of the emergency and urgency of response, recommendation for the most appropriate response resources, and pre-arrival instructions. The statute further requires continuing education and quality assurance for each PSAP. MIH programs must therefore integrate with the EMD programs in place at the respective communities.

Home Care and Hospice Presentation

On November 21, 2017, the members of the MIH Workgroup representing home care and hospice presented the laws and regulations governing licensed and certified home healthcare agencies, homemaker-companion agencies, privately hired caregivers, self-directed care, and licensed and certified hospice agencies. The potential challenges that regulated home healthcare agencies, hospice agencies, and homemaker companion encounter were presented, including triggers for referrals to these types of agencies; types of home care services provided by these agencies; and distinctions among the different types of agencies providing home care. The Hospice agency also spoke about their specific MIH programs in other states for hospice, including risk evaluations.

Office of Health Strategy Presentation

On February 27, 2018, the Office of Health Strategy (OHS) provided an overview of their office and current efforts to assess the most cost effective way to provide quality medical care. Their approach is to harmonize expectations across all payers. OHS' interest included four primary areas: alternate destination, hospice revocation avoidance, high frequency utilizers, and data analysis. OHS requested the MIH workgroup work with and align recommendations with their office. OHS suggested the development of a concept paper to include:

What you want in the scope:

- Formal agreement signed by the Governor and other Agencies

- If possible, incorporate objectives you want to achieve

- Department of Public Health sets the rates, need alternative payment methodologies

- Range of methods used to pay for diversified services

However, it was determined that better data and data exchange is needed. Currently, data collection is poor and we need to define what data is needed at the state and provider level.

Review of Successful Models

Public Act 17-146 required the Workgroup to review successful models for mobile integrated health programs implemented in other areas of the country, including pertinent studies relevant

to the implementation of a mobile integrated health program. Below is a list of documentation the Workgroup reviewed and considered in their recommendations to the Commissioner. To view this documentation, please click Legislative MIH Workgroup Presentations and Documents.

Study Documents

- NGA Center for Best Practices Memorandum, National Governors Association, July 18, 2018.

- State by State Community Paramedicine-Mobile Integrated Healthcare Status Board, NASEMSO CP-MIH Committee, March 2018.

- Mobile Integrated Healthcare and Community Paramedicine (MIH-CP), 2nd National Survey, NAEMT, 2018.

- The Business Case for Community Paramedicine: Lessons from Commonwealth Care Alliance's Pilot Program, Center for Healthcare Strategies, December 2016.

- Community Paramedicine — Addressing Questions as Programs Expand, Lisa I. Lezzoni, M.D., Stephen C. Dorner, M.Sc., and Toyin Ajayi, M.B., B.S., NEJMP, March 24, 2016.

- Mobile Integrated Healthcare and Community Paramedicine: An Emerging Emergency Medical Services Concept, Bryan Y. Choi, MD*; Charles Blumberg, BS; Kenneth Williams, MD, March 2016.

- MIH/CP: Existing Programs Review, MIH Working Committee, 2015.

- Realigning Reimbursement Policy and Financial Incentives to Support Patient-Centered Out-of-Hospital Care, Kevin Munjal, MD, MPH and Brendan Carr, MD, MS, JAMA, February 20, 2013.

- Community Paramedic, NASEMSO, 2004

Integration of EMS with other community health stakeholders is not a new concept. In fact, in 1996 the National Highway Traffic Safety Administration (NHTSA) in partnership with Health Resources and Services Administration (HRSA) published the EMS Agenda for the Future, which included the following vision statement:

"Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall healthcare system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing healthcare

resources and will be integrated with other healthcare providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute healthcare resources. EMS will remain the public's emergency medical safety net."

Key Recommendations for EMS Agenda

The first set of key recommendations published in the EMS Agenda Include:

- Integration of Health Services

- Expand the role of EMS in public health

- Involve EMS in community health monitoring activities

- Integrate EMS with other healthcare providers and provider networks

- Incorporate EMS within healthcare networks' structure to deliver quality care

- Be cognizant of the special needs of the entire population

- Incorporate health systems within EMS that address the special needs of all segments of the population

In 2016 NHTSA issued a call for review and update for the Agenda

The final published document, "EMS Agenda 2050, A People-Centered Vision for the Future of Emergency Medical Services" was published in January 2019 [3].

[3] EMS Agenda 2050 Technical Expert Panel. (2019, January). EMS Agenda 2050: A People-Centered Vision for the Future of Emergency Medical Services (Report No. DOT HS 812 664). Washington, DC: National Highway Traffic Safety Administration. Retrieved from:

A draft of the document, "EMS Agenda 2050 issued in May of 2018".

A summary of EMS Agenda 2050, A People Centered Vision calls for EMS systems to be [4]:

- Adaptable and Innovative

- Inherently Safe and Effective

- Integrated and Seamless

- Reliable and Prepared

- Socially Equitable

- Sustainable and efficient

These documents and the information contained within are important guideposts when considering the direction Connecticut takes with MIH. National Highway Traffic Safety Administration, (NHTSA) is the governing body at the federal level of EMS standards in training standards of care and scope of practice.

EMS systems by design in Connecticut (and across the nation) have participated in community-based patient care management between most, if not all community healthcare provider types in both emergent and non-emergent settings for years.

Connecticut is not the first state to consider MIH programs. According to a 2014 national survey conducted by the National Association of Emergency Medical Technicians (NAEMT) over 100 EMS agencies in 33 states have developed and implemented MIH programs or pilots.

The workgroup recognizes that Connecticut possesses its unique demographics with respect to its EMS system design and associated regulations and how they [EMS Agencies] work with and between the state's 29 acute care hospitals. The workgroup also recognizes that in the absence of current cost-related risk and benefit data for Connecticut, there are numerous publications from states and programs across the country that show great promise in the positive impact MIH programs have reducing costs and improving patient care experience.

One such program related analysis from MedStar Mobile Healthcare in the Fort Worth Texas reveals a total expenditure savings of nearly $23 million over six year period (2012-2018) through the implementation of 3 MIH programs. These savings are a result of avoided ambulance transports, ED visits, and Hospital Admissions. [6]

[6] MedStar Mobile Healthcare, Fort Worth Texas, (2018)

See *Appendices C and D*

One study of note regarding the influence of MIH on lowering the costs of Medicare Advantage population is published in the Journal of Health Economics and Outcomes Research. The results of this study indicate that the population of Medicare Advantage patients in the study group demonstrated favorable results in both patient satisfaction and lower costs as follows:

> *"All measured trends demonstrated favorable results for patients participating in the MIH program when compared against a matched cohort: 19% decrease in emergency department per member per month (PMPM) cost, 21% decrease in emergency department utilization, 37% decrease in inpatient PMPM cost, 40% decrease inpatient utilization, all measures reached statistical significance. Member experience satisfaction scores and patient activation measures also showed favorable preliminary trends."*

[7] Castillo, Daniel & H. Beck, Eric. (2016). Landmark Study Finds Mobile Integrated Healthcare Significantly Decreases Emergency and Inpatient Utilization.

States such as Minnesota have passed legislation authorizing medical assistance (Medicaid) reimbursement rates as determined by the Human Services Commission to cover community paramedic services to certain high-risk individuals, including frequent ED users or other patients identified as at-risk for hospital readmission.

Mobile Integrated Health Workgroup Subcommittee Reports

As the Workgroup moved through their review of the tasks outlined in Public Act 17-146, it was determined that subcommittees should be formed with subject matter expertise to tackle the following areas: education, application process, legislative revisions, options for MIH programs,payment/reimbursement, and public education and marketing. These subcommittees submitted the following reports to the MIH Workgroup

Education Subcommittee for the MIH Provider
Submitted by Josh Beaulieu, MBA, LP
Battalion Chief, Manchester Fire-Rescue-EMS Chair, CEMSAB MIH
Committee Member/Education Subgroup Liaison, CT MIH Legislative
Workgroup

The following provider education recommendations were developed in collaboration with the Connecticut EMS Advisory Board (CEMSAB) MIH committee. Over the past year that committee has researched MIH provider education expectations and compiled information on curriculum and content topics from several MIH programs around the country. The education recommendations provided here consider what the CEMSAB MIH committee has identified as beneficial practices in MIH provider education.

Identifying strict provider education requirements without first identifying the specific goals and objectives of a particular MIH implementation is not reasonable. Given that the legislative MIH Workgroup is currently contemplating several possible MIH programs for implementation in Connecticut, each with its own goals and objectives, the recommendations provided here are general and considered to be applicable to any MIH program.

Recommendation 1—All paramedics working within the scope of an approved MIH program should be trained in the core competencies of an MIH provider through a consistent education program. While not an exhaustive list, the following topic areas represent core content found in the MIH education programs reviewed and should be considered for inclusion in an MIH provider core education program for Connecticut MIH providers:

Core Curriculum for Connecticut MIH Provider Education	
The Role of the MIH Provider	Community Needs and Resource Assessment
Motivational Interviewing	Communication
Care Coordination	Injury Prevention
Patient Education	Professional Boundaries and Ethics
Personal Safety and Wellness	Primary Care Role of the Paramedic

Social Determinants of Health	Cultural Competence
Care Plans	Chronic Disease Management
Mental Health	Nutrition
Pharmacology	Crisis Management and Verbal De-escalation
Compassion Fatigue	Family Systems Theory
Overview of established home and community-based services including home healthcare and hospice	

Recommendation 2—All MIH provider education programs should include physician oversight. Physician involvement in the education approval process for core education programs as referenced in Recommendation 1, and in any education module that is specific to the MIH program, is strongly encouraged.

Recommendation 3—A minimum level of field experience should be established for all paramedics desiring to provide MIH program services. Minimum experience may be defined as a specific number of patient contacts, a specific number of on-duty hours or other measurement of experience, with the goal of ensuring the paramedic has had the opportunity to develop assessment, procedural and communication skills advantageous for the MIH provider and that are best developed through practical experiences in the field.

Recommendation 4—MIH provider education programs should be accredited by a formally recognized education accrediting agency such as the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), the Commission on Accreditation for Pre-Hospital Continuing Education (CAPCE), or an equivalent accrediting agency.

Recommendation 5—MIH provider education should be validated through a standardized process. This can be accomplished through written and practical testing as appropriate for the educational content being validated or through a certification process separate from the educational program. An example of a separate certification process is the Certified Community Paramedic (CP-C) credential offered by the International Board of Specialty Certification (IBSC).

Recommendation 6—All MIH programs should identify the specific education requirements for their MIH providers as well as a detailed plan for initial and ongoing provider training in

core content and MIH program-specific education. This education plan should include a quality improvement element to identify any deficiencies in provider education.

Application Subcommittee

See *Appendix B* for the application.

Legislative Subcommittee

The legislative committee reviewed Connecticut's statutes and regulations to determine if statutory revisions would be necessary to ensure the MIH program can be implemented. The following chapters have sections that could potentially require changes when the State of Connecticut approves the Mobile Integrated Healthcare programs identified in this report.

Chapter 518a - Emergency Telecommunications

https://www.cga.ct.gov/2015/pub/chap_518a.htm

This Chapter may need a definition added and additional revising with the implementation of "Nurse Triage"

Chapter 368d—Emergency Medical Services - https://www.cga.ct.gov/2017/pub/chap_368d.htm

Chapter 384d—Paramedics - https://www.cga.ct.gov/2015/pub/chap_384d.htm

Chapter 378—Nursing - https://www.cga.ct.gov/2015/pub/Chap_378.htm

This Chapter may need specifics added with the implementation of "Nurse Triage"

The following Regulations have the potential for changes based on the specific Mobile Integrated Healthcare programs identified: Regulations that fall under section 19a-179—Office of Emergency Medical Services - https://portal.ct.gov/-/media/sots/regulations/Title_19a/179pdf.pdf?la=en

Options for Mobile Integrated Health Programs

Members: Bruce Baxter, Jim Santacroce, David Lowell

May 30, 2018, Rev. June 08, 2018

Summary: Members of the MIH Options subcommittee drafted the following outline of MIH program options that are recommendations to the MIH Legislative committee for consideration and adoption to be included in the final recommendations report to be issued to the legislature.

The overall objectives of development and implementation of MIH programs shall, at a minimum:

- Provide a consistent level of patient assessment and care within approved protocols and clinical scope of practice under medical direction of a sponsor hospital.

- Enhance quality of, and access to, the most appropriate level of medical assessment, surveillance, and care.

Implementation of MIH programs in a community or region shall be inclusive of primary service area responders (PSARs) in the planning and communication processes, and shall in no way circumvent or jeopardize the integrity of the local PSA emergency notification and response systems or procedures.

Implementation of MIH programs in a community or region shall not supplant existing levels of community healthcare services.

The subcommittee recognizes that not all areas of the state have the same need for the various MIH program options, and that *need* should be determined on a community or regional basis by engaging (at a minimum) the acute care hospital(s), EMS Agencies, licensed and certified home health care agencies, and other healthcare stakeholders that service the community or region being addressed.

The subcommittee supports the filing of an application (design TBD based on the New Hampshire model) to DPH and such application shall include at least the following elements:

1. Letter of Intent

2. Scope of Project and Population to be Served

3. General Project description, including needs assessment methodology

4. Patient Interaction Plan

5. Staffing Plan

6. Training Plan

7. Medical Direction/Quality Management Plan

8. Data Collection Methods, Evaluation and Use Plan.

Such application shall be completed and signed by the EMS Provider Chief of Service or designee and the Sponsor Hospital Medical Director. More details of the application and approval/denial process to be developed by appropriate committee/DPH staff.

The following MIH options list recommended criteria that members of the subcommittee believe are essential minimum standards with possible additional criteria TBD.

Education and training plans shall be created to supplement existing knowledge with additional focused knowledge related to the health characteristics and population served.

I. Alternative Destinations

May include urgent care, orthopedic, community health centers, or other such specialties

- The subcommittee believes that alternate destinations shall be licensed medical facilities regulated by DPH that also have a direct affiliation with an acute care hospital. The subcommittee feels that these criteria promote a continuity of communication and care for proper quality oversight, patient navigation, data collection, and management.

II. Re-Admission Avoidance

May include such populations defined as high-risk for readmission where medical management strategies supplemented by an EMS MIH protocol would decrease the likelihood for readmission. Such EMS-MIH medical management strategies would not supplant existing and available home health programs; rather they would fill gaps in coverage, including but not limited to:

- Period of time between discharge and first home health appointment

- During home health coverage, between appointments when EMS is activated through the 9-1-1 system, or when requested by the home health agency, in a non-emergent instance where the home health agency cannot provide an immediate response but determines that an assessment of current conditions is warranted

- After the benefit period for home health services is expired and a protocol is established to perform such periodic assessments of patient status deemed appropriate by the medical providers in collaboration with a formal and approved EMS-MIH program.

Universal improvements and standardization of discharge plans is key and should include, but may not be limited to:

- Universal identification and reporting of high-risk patients (medical)

- Non-Compliance Risk

- Communication of home health services that are prescribed and dates of start-stop for high risk populations

- Continuity of communications of patient assessments and conditions between various care providers

III. High-Utilizer Groups

Defined as a frequent utilizer of EMS activation for access to non-emergent and/or primary care through EMS alone, or via EMS to an Emergency Department.

Adopt a universal threshold for identification of a high utilizer (# of calls per month, per quarter, etc.)

Includes a community collaboration of stakeholders (incl. FQHC, acute care, home health, behavioral health, community social services, etc.), case reviews, identify and access to appropriate resources.

- Medical Direction/Control onboard
- Integration with existing Community Care Teams
- Establish enrollment criteria
- Quality Outcome-Based
- Expanded Behavioral Health Training

IV. Hospice Revocation Avoidance

Universal improvements and standardization of discharge plans is key and should include, but may not be limited to:

Universal identification and communication of high-risk patients

- Communication of home health-hospice services that are prescribed and dates and special conditions that may exist

Communication of physician and family engagement

Continuity of communications of patient assessments and conditions between various care providers

V. Nurse Triage

The subcommittee believes that a structured nurse triage system is a very useful element combining Emergency Medical Dispatch (EMD), which is currently required under statute, and MIH programs. Nurse triage systems are critical to identify populations of low-acuity users of the 9-1-1 System who access care through the emergency department, as well as patients at risk for readmission that do not necessarily need emergency EMS response and transport to an emergency department.

The subcommittee believes that nurse triage is not practical in every emergency dispatch center in the state, but that a regional approach is appropriate.

Such a program must be structured and integrated with Emergency Medical Dispatch programs that base their protocols on clinical outcomes and contain critical elements such as:

- Credentialing of staff

- Quality assurance and improvement methodology

- Case reviews

- Compliance Level Assessments

- Maintenance of minimum compliance standards

VI. Wellness, Safety & Prevention

The subcommittee recognizes that existing programs and initiatives in communities across the state address various needs, including but not limited to, wellness clinics, fall prevention, and home safety inspections. While these programs may not fall totally within the current discussion on scope of MIH programs, they are community-based services offered as public information, education, and safety unrelated to an emergency call for service and not necessarily delivered by paramedic-level providers.

In some systems, MIH programs include participation in vaccination clinics and other wellness screenings where paramedics serve as adjunct practitioners within a system design that permits, within protocols, paramedics to work alongside other healthcare professionals in various community health scenarios.

Payment/Reimbursement

This section addresses the potential fiscal impact of implementing a mobile integrated health (MIH) program in Connecticut, including consideration of the potential savings or additional costs that insureds, care providers, and the Medicaid program administered by the Department of Social Services (DSS). It also addresses potential reimbursement issues related to healthcare coverage for the provision of MIH services by licensed paramedics.

Alignment of MIH Services with Financing Models

The basic premise for design and implementation of MIH is to integrate the availability and accessibility of licensed paramedics in the EMS system in communities across the state, performing within their scope of practice, to provide value-based, patient-centered care. This involves strategies to migrate from a Volume-Based "fee for service" model to a Value-Based model that engages all stakeholders in the mission to identify the lowest-cost, most appropriate care.

The potential savings or costs associated with any of the proposed MIH options depend upon the strategies adopted to finance the services. Some options have the potential to generate savings

by substituting less expensive MIH services for higher cost emergency department and hospital inpatient services.

Current Fee for Service (FFS) models of reimbursement incentivize volume, which bundles multiple costs (Emergency Ambulance, ED admission, Lab Work, X-rays, etc.). Implementation of a properly designed MIH program has the potential to decrease emergency ambulance response, transport, and unwarranted ED and inpatient admissions with their associated costs.

Implementation strategies must consider the thoughtful substitution of high-cost services with more appropriate lower aggregate-cost services.

FFS solutions may also result in higher Medicaid costs borne by the state, while savings accrue to another payer. For example, if Medicare is unwilling or unable to reimburse to the same extent that such options are paid by Medicaid, Medicaid will be left to cover the cost of the service for individuals who are dually eligible. Most of the resulting savings will thus accrue to Medicare, which is federally funded. The same is true for patients covered by either Medicaid or commercial plans in situations where commercial payers do not offer such coverage.

The FFS payment model stands in contrast to other models, including bundled payments, patient-centered medical homes, and accountable care organizations (ACOs). There has been a shift in the past several years away from FFS payment models and toward value-based payment programs that reward healthcare providers based on efficiency and patient outcomes rather than the volume of services rendered. There may be an economic incentive to expand value-based payment models to include MIH services, in that such services offer a lower-cost option as compared to other levels of care.

MIH Services Reimbursed by the Connecticut Medicaid Program

In Connecticut, Medicaid operates as a self-insured, managed fee-for-service program. DSS collects data predominantly through treatment authorizations (for non-emergency ambulance) and paying claims submitted by care providers. To achieve cost savings, an MIH services program must result in the provision of services in a less costly setting or, alternatively, eliminate the need for services entirely. Each of these assumptions leads to its own challenges when measuring the impact of the MIH proposal applying Medicare and Medicaid claims data.

A report compiled by the Legislative Program Review and Investigations Committee (September 26, 2013) entitled "Hospital Emergency Department Use and its Impact on the State Medicaid Budget," reveals the quantity of Emergency Department visits in FFY2012 as 1.75 million compared to million in 2006. The report indicates an 18% increase for the period and, although it cites that visits from clients with private insurance decreased (approximately 10%), visits to the ED by Medicaid recipients increased substantially. This is relevant with respect to evaluating potential

for cost savings under development of an MIH program because the report also indicates that only about 7% of all ED visits by Medicaid patients result in an admission. (https://www.cga.ct.gov/pri/docs/2013/HEDU%20FINAL%20PRI%20HOSP%20ED%20USE)%20REPORT%20FOR%20PRINTING.pdf)

Despite the above referenced data, at present, DSS cannot readily reconcile ambulance transport data with ER admission data to determine whether an ambulance transport to an emergency department was for an emergent medical condition or whether such condition could have been addressed at an alternative site. Ambulance providers, however, can compare the reported nature of call and condition at time of dispatch to the condition of patients and mode of transport to the emergency department. In addition, they know the frequency of repetitive transports for individual and suspected high utilizers. DSS must engage in a manual process of claims review in order to make such a determination. Additional resources may be required by DSS if the department is to develop the capacity to measure the impact of an MIH program on emergency department utilization.

Soon, the state may be able to measure the impact of an MIH program that provides for transport of patients to an urgent care center rather than an emergency department because DSS and the Department of Public Health (DPH) are moving rapidly towards licensure of these centers, pursuant to PA 18-149. This will allow for data to become readily identifiable from claims records. In the past, such centers have enrolled as several provider types. Regarding the proposed MIH option relating to home health, the net impact of paramedics covering missed home health visits will require data from the home health industry to identify and quantify because DSS does not receive claims for missed visits.

Ambulance Rate Setting and alternate payment models

Under Section 19a-177 of the Connecticut General Statutes (CGS), DPH is required to establish rates for the conveyance and treatment of patients by licensed ambulance services and invalid coaches, as well as emergency service rates for certified ambulance and paramedic intercept services. The rate-setting methodologies are stipulated in regulation. DPH currently sets maximum allowable rates for each licensed or certified ambulance service. Regulations prohibit certified or licensed providers from charging for services that are not specified in the appropriate rate schedule.

Connecticut is one of only a few states, including Utah and Arizona, which set maximum allowable rates for emergency and non-emergency ambulance services. Historically, reimbursement for ambulance services, for both public and private payers, has been tied to providing transportation for patients. In general, EMS providers are not typically paid for a response to a 9-1-1 call that does not result in transport, resulting in the provider being uncompensated for the care provided and supplies utilized at the scene. This practice can result in an incentive to transport patients regardless of acuity.

Anthem BlueCross has taken a step to address lowering the volume of ambulance transports for patients who do not require an ED visit by introducing a treatment and no transport reimbursement rate, thus lowering the overall costs associated with the traditional FFS model of transporting a patient who did not require an emergency department visit. Beginning January 1, 2018, Anthem BlueCross BlueShield began reimbursing under "treat and non-transport" codes, allowing EMS organizations to be reimbursed (at 75% of the average base rate to transport) for providing certain care even if they did not ultimately transport a patient to the emergency department.

However, this new policy has not yet been implemented in Connecticut due to the state's ambulance rate setting process, which is governed by Section 19a-178c of the general statutes. Some considerations around setting this new maximum rate include the potential for:

- identifying that the payment for this service would not be included as a mandate for insurers or EMS provider allowing insurers and EMS providers to have a contractual arrangement that identifies the circumstances for utilization and payment for this service

- increasing consumer costs for any individual that is not covered by Anthem, as any "treat and non-transport" service could now be charged, potentially leading to out-of-pocket costs to consumers

- adding overall costs to the healthcare system by adding a new fee-for-service rate

- generating overall savings for the healthcare system and decreasing consumer costs by substituting lower cost services for avoidable high-cost hospital and emergency department services

The impact of the new rate cannot be accurately estimated without comprehensive data from ambulance companies regarding the types of calls they receive, including payer information. This data is not available at the present time.

In light of this new proposal to implement MIH, there has been ongoing analysis regarding the benefits and drawbacks to Connecticut of continuing to regulate ambulance rates and, if the current process is maintained, whether additional flexibility is needed to allow EMS organizations to participate in different payment models, as the current mechanism primarily supports a fee-for-service rate structure.

Insurance Considerations and Insurance Mandates

It is important to note that state insurance laws do not apply to all commercial health plans. Title 38a of the Connecticut General Statutes concerns regulation of insurance in Connecticut, and provides the Connecticut Insurance Department with regulatory jurisdiction over the fully-insured market. Self-insured plans fall under federal jurisdiction, specifically the Employee

Retirement Income Security Act (ERISA); such plans are not subject to state insurance coverage requirements and mandates.

Chapter 700c of the Connecticut General Statutes concerns the regulation of health insurance in Connecticut. Among the many items addressed in this chapter are mandated coverages for individual and group health insurance plans issued in Connecticut in the fully insured market. Sections 38a-498 and 38a-525 of the general statutes stipulate mandatory coverage of medically necessary ambulance services for individual and group health plans:

"*The policy shall, as a minimum requirement, cover such services whenever any person covered by the contract is transported when medically necessary by ambulance to a hospital*."

While these statutes set a minimum baseline of coverage, they do not prohibit any additional coverage if a carrier so chooses. For example, while not required, a carrier is able to cover an additional *"treat and non-transport"* service and build that coverage into their premium. However, if the law were to be amended to mandate that carriers provide this additional coverage, then it would be considered a new mandate under the Affordable Care Act (ACA) and the state would be required to defray (pay for) the cost of the mandate.

Under the ACA and Connecticut law, essential health benefits (EHBs) are required to be covered.[1] In order to recognize differences in mandated coverage across states, EHB packages were defined as mandated benefits enacted by each state on or before December 31, 2011. Any new or expanded mandates added after this date result in the state being required to defray the cost of providing them for both Exchange plans and the State employee health plan.

Expanding the insurance mandates through a statutory change would only impact 35% of the commercial market in Connecticut and also lead to a direct fiscal impact to the state to account for the premium cost of the new mandate.

Cost to Administer a New MIH Services Program

DPH Regulation and Oversight Costs: The following depicts the costs to DPH for the implementation of an MIH program:

[1] Connecticut Public Act 18-10

There is interest from the EMS community to implement a statewide MIH program that EMS providers believe, based on their day to day operations, will benefit patients in all catchment areas. This program would potentially include all the concepts discussed by the MIH Workgroup. However, it is difficult to quantify the potential breadth and scope of such a program as DPH has not received the necessary data from the EMS community that would:

1. Demonstrate the need for this type of program

2. Determine the payer mix

3. Indicate the number of providers that may be interested in implementing the MIH program

As a result of this missing data, one of the recommendations from the MIH Workgroup was to require an EMS provider to complete a needs assessment prior to applying to DPH to implement an MIH program.

To implement a statewide MIH program, DPH would require additional resources as there are sixty-one certified and sixteen licensed EMS organizations at the paramedic level in the state. Note that, to develop an estimate of the costs to implement this new program, DPH conducted a review of MIH in other states and municipalities. It was identified that MIH cannot be actualized without the expertise, guidance, and oversight of a Medical Director, as well as the need for supportive services.

Currently, the Office of Emergency Medical Services (OEMS) within DPH is provided the services of a 0.5 FTE Medical Director that is fully exercised with current duties. Adding MIH oversight to OEMS' responsibilities could not be achieved without the addition of additional 0.5 FTE Medical Director services. Further, implementation of a statewide MIH program would require the support services of an additional Health Program Associate (HPA), a licensed paramedic to monitor implementation of MIH and measure quality outcomes through data collection. The Medical Director and HPA also would be responsible for developing quality measures for data collection.

> In 2017, 35% of the commercial market in Connecticut was fully insured and 65% was self-insured.

Presently, DPH has not developed or adopted educational curriculum/materials that are needed for paramedics to provide the community-based healthcare services under an MIH program. This scope of practice would be conceptualized with DPH OEMS in collaboration with Connecticut Emergency Medical Services Medical Advisory Committee (CEMSMAC).

Responsibilities of the 0.5 FTE Medical Director and 1.0 FTE HPA would include, but not be limited to:

- Coordination between DPH and CEMSMAC to develop protocols for paramedics to implement mobile integrated health

- Determining if additional educational requirements is needed for paramedics

- Approving initial education programs

- Setting requirements for renewals of Continuing Education Units (CEUs)

- Collaborating with the Regional EMS Coordinators to establish outcome measures

- Reviewing and approving applications from EMS organizations and providers

- Conducting complaint investigations for the new MIH programs that include any allegations of deviations from current standards of care

- Tracking and monitoring required data reporting from programs that have implemented MIH

Additionally, should the Committee decide to move forward with a need for service application, for each of the applications submitted to DPH, a public hearing would need to be conducted. These hearings take place in the Department's Public Health Hearing Office before an impartial hearing attorney. These attorneys may represent the Department in any disciplinary actions that may be a result of a complaint investigation. At current staffing levels, the Department could implement up to ten need-for-service requests annually.

Costs to Hospitals and EMS Providers

Hospitals Under current law, paramedics perform treatment modalities administered under the medical oversight and direction of a sponsor hospital and, without statutory changes, this oversight and direction will remain in place for any proposed MIH service program. Any such program should contemplate compensation to a sponsor hospital for providing medical control, and consider any additional costs associated with potential liability resulting from an expansion of medical control that may be imposed on hospitals.

EMS Providers Insurers are required by various accrediting bodies to credential providers according to their scopes of practice, requiring that any MIH program account for varying levels of services by allowed by law.

Public Education and Marketing:

Although a public education and marketing subcommittee was considered, until there is a well-considered and detailed structure to the State's MIH program, further development of a public education and marketing campaign is premature. As the process moves forward the public education and marketing subcommittee will convene as necessary.

There are publically available toolkits for communicating the purpose and value of bringing the mobile healthcare concepts to a community.

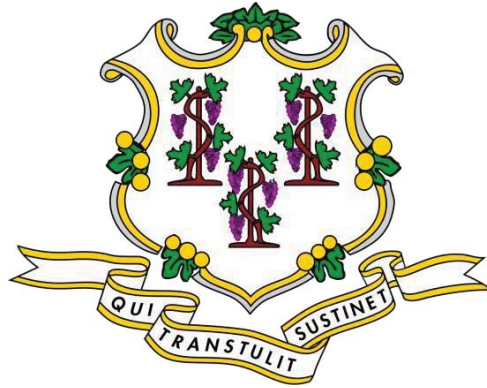## List of Appendices

Appendix A   Public Act No. 17-146

Appendix B   CT Application for MIH Considerations

Appendix C   NAEMT Report on MIH and Community Paramedicine

Appendix D   MedStar Mobile Healthcare Expenditure Savings Analysis

Appendix E   Minnesota State Bill HF No. 2060

Substitute House Bill No. 7222

Public Act No. 17-146

AN ACT CONCERNING THE DEPARTMENT OF PUBLIC HEALTH'S VARIOUS REVISIONS TO THE PUBLIC HEALTH STATUTES.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Sec. 45. (*Effective from passage*) (a) The Department of Public Health shall, within available appropriations and in consultation with the Department of Social Services and the Insurance Department, convene a working group to implement a mobile integrated healthcare program. The program shall permit a paramedic, as defined in section 20-206jj of the general statutes, to provide community-based healthcare within his or her scope of practice and to make recommendations regarding transportation by emergency medical services providers of a patient to a destination other than an emergency department. For purposes of this section, "community-based healthcare" means healthcare provided using patient-centered, mobile resources outside of the hospital environment.

(b) The working group shall consist of the following members, who shall be appointed by the Commissioner of Public Health not later than sixty days after the effective date of this section: (1) A representative of the Connecticut Hospital Association, or such representative's designee; (2) a chairperson of the Connecticut Emergency Medical Services Medical Advisory Committee, established pursuant to section 19a-178a of the general statutes, or such chairperson's designee; (3) an advanced practice registered nurse licensed under section 20-94a of the general statutes; (4) a licensed behavioral health professional; (5) a representative of the Community Health Center Association of Connecticut; (6) a representative from a primary care provider that self-identifies as an urgent care facility; (7) a representative of the Connecticut commercial health insurance industry; (8) a representative of a fire department-based emergency medical

services provider; (9) three representatives of emergency medical services providers, at least one of whom shall be a designee of the Association of Connecticut Ambulance Providers and have a background in providing ambulance services in a rural area of the state, one of whom shall have a background in providing ambulance services in an urban area of the state, and one of whom shall be a designee of the Connecticut Emergency Medical Services Chiefs' Association; (10) a representative of the Connecticut Association for Healthcare at Home; (11) a representative of an agency providing hospice care that is licensed to provide such care by the Department of Public Health or certified to provide such care pursuant to 42 USC 1395x, as amended from time to time; (12) a representative of the Connecticut Nurses Association; and (13) a representative of the Connecticut College of Emergency Physicians. The working group shall also consist of the following members, or their designees: (A) The director of the Office of Emergency Medical Services, as defined in section 19a-175 of the general statutes; (B) the chairperson of the Emergency Medical Services Advisory Board, established pursuant to section 19a-178a of the general statutes; (C) the Commissioners of Public Health and Social Services and the Insurance Commissioner; (D) the Secretary of the Office of Policy and Management; and (E) the chairpersons, vice chairpersons and ranking members of the joint standing committee of the General Assembly having cognizance of matters relating to public health.

(c) (1) The tasks of the working group shall include, but not be limited to, identifying (A) areas in the state that would benefit from a mobile integrated healthcare program due to gaps in the availability of healthcare services in such areas, (B) any patient care interventions that a paramedic may provide within a paramedic's scope of practice, (C) any additional education or training that paramedics may need in order to provide community-based healthcare, (D) any potential savings or additional costs associated with the provision of healthcare coverage for community-based healthcare that an insured, as defined in section 38a-1 of the general statutes, or the Medicaid program administered by the Department of Social Services, may incur, (E) any potential reimbursement issues related to healthcare coverage for the provision of community-based healthcare by a paramedic, (F) minimum criteria for the implementation of the mobile integrated healthcare program, (G) any statute or regulation that may be impacted by the implementation of the mobile integrated healthcare program, and (H) any successful models for a mobile integrated healthcare program implemented in other areas of the country.

(2) The working group shall, in collaboration with the Emergency Medical Services Advisory Board and its Medical Advisory Committee, make recommendations regarding (A) the ability of an emergency medical services provider to transport a patient to an alternative destination other than a hospital emergency department for healthcare services when established protocols dictate that the emergency department is not the most appropriate destination for such patient, and (B) whether an emergency medical services provider requires additional training for

purposes of making a determination regarding whether to transport a patient to an alternative destination.

(d) Not later than January 1, 2019, the Commissioner of Public Health shall report, in accordance with the provisions of section 11-4a of the general statutes, regarding the outcome and the recommendations of the working group to implement the mobile integrated healthcare program to the joint standing committees of the General Assembly having cognizance of matters relating to public health, human services and insurance.

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Office of Emergency Medical Services

Application for Mobile Integrated Health Care Services (MIH)

Considerations

1. A request of waiver in the form of this application to conduct MIH shall be submitted to The Office of Emergency Medical Services (OEMS). Once deemed complete, OEMS shall consult first with the Connecticut EMS Medical Advisory Board (CEMSMAC) and once approved, with the Connecticut EMS Advisory Board (CEMSAB). Once CEMSMAB approval has been received, the application shall go to The Public Hearing Office for public hearing and notification shall be made to all interested parties, including the Regional Council.

2. *Requests for additional information shall be forwarded to the applicant within ninety (90) days of the receipt of the application. The applicant shall provide such requested additional information within ten (10) working days of the receipt of such request. The Council(s) shall have forty-five (45) days after the receipt of an application to forward a recommendation to OEMS. The above time lines may be waived by mutual agreement.*

3. The application with all original signature pages shall be mailed to the address below:

Raffaella Coler, Director
Department of Public Health
Office of Emergency Medical Services
410 Capitol Avenue, MS #12EMS
P.O. Box 340308
Hartford, CT 06134-0308
(860) 509-7975

Note: Please retain a copy of the completed application for your records.

Instructions

An application will be considered complete when it is submitted to the Connecticut Department of Public Health, Office of Emergency Medical Services (address above) and contains the following completed sections:

☐ **Section 1: Corporate Information**

This section shall contain the attached completed document labeled "Section 1: Corporate Information".

☐**Section 2: Letter of Intent**

This section shall contain document labeled "Section 2: Letter of Intent" which will be a signed letter from the EMS Service requesting consideration of a proposed MIH Program by OEMS and declaring the intentions of the proposed program.

☐**Section 3: Type of MIH Program**

This section shall contain a document labeled "Section 3: Type of MIH Program" and shall explain the type of MIH Program the EMS Service would like to participate in (i.e. readmission reduction, high frequency utilizer, etc.)

☐**Section 4: General Program Description**

This section shall contain a document labeled "Section 4: General Program Description" which gives a description of the program and how the EMS Service and all stakeholders propose the program will take place. Include how the program will:

1. Improve patient satisfaction.
2. Increase overall patient health.
3. Decrease cost.

☐**Section 5: Patient Interaction Plan**

This section shall contain a document labeled "Section 5: Patient Interaction Plan" which explains patient interaction by all stakeholders including, but not limited to, electronic health records for continuity of care. Include how the program will:

1. Maintain security of patient information.
2. Obtain signatures and medical direction.
3. How patient will enter into the system.

☐**Section 6: Staffing Plan**

This section shall contain a document labeled "Section 6: Staffing Plan" which provides for staffing consideration for the MIH Program i.e. a complete roster of MIH approved   paramedics. Include initial general training curriculum as well as training curriculum specific to your program

☐**Section 7: Training Plan**

This section shall contain a document labeled "Section 7: Training Plan" which provides for and describes how staff are trained and certified; initially as well as a plan for continuing education requirements.

☐**Section 8: Medical Direction / Quality Improvement Plan**

This section shall contain a document labeled "Section 8: Medical Direction / Quality Improvement Plan" which shall explain a plan for providing Medical Direction and QA/QI for the program with the end goal of patient centered outcomes.

☐**Section 9: Data Collection and Plan**

This section shall contain a document labeled "Section 9: Data Collection and Plan" which shall explain a plan for data collection and dissemination to OEMS.

☐**Section 10: Letters of Support from Collaborating Agencies**

This section shall contain a document labeled "Section 10: Letters of Support from Collaborating Agencies" which shall contain a signed letter of support from all stakeholders and collaborating agencies so named in Section 3.

☐**Section 11: Payment/Funding Structure**

This section shall contain a document labeled "Section 11: Payment/Funding Structure" which shall contain details of a plan for funding the startup and continuing the MIH program, as well as information describing a plan for receiving payment for your services.

☐**Section 12: Certificate of Insurance Forms**

This section shall contain a document labeled "Section 12: Certificate of Insurance Forms" which has your insurance information as follows:

- Proof showing General or Public Liability Insurance
- Malpractice Insurance (Also known as Professional Liability)

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Office of Emergency Medical Services

Section 1: Corporate Information

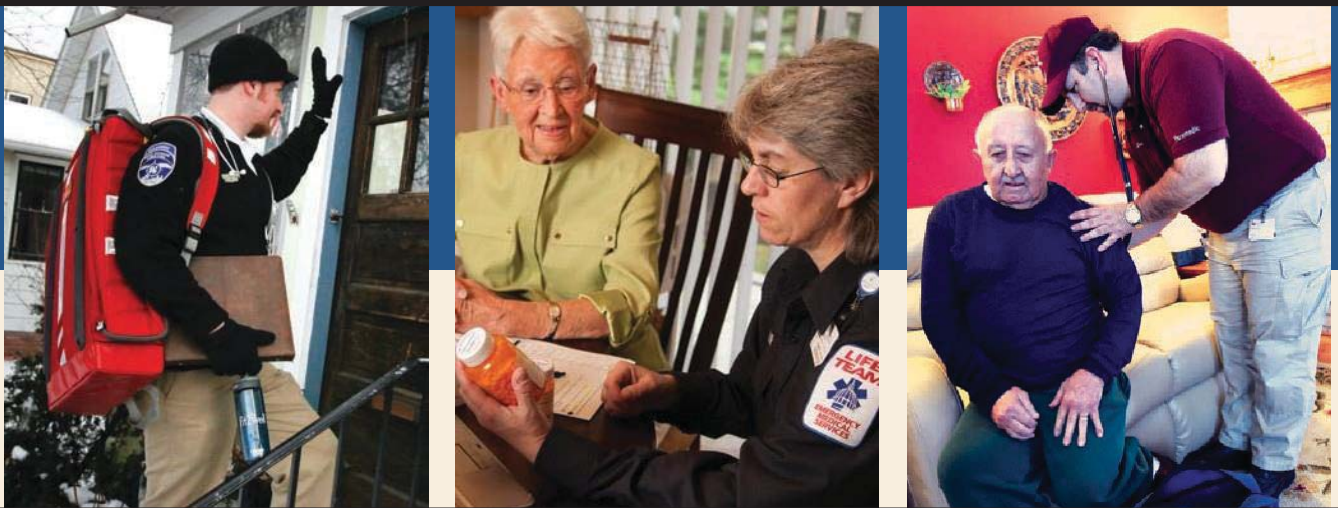1. Official legal Name of Service: _____

2. Business Address: _____

   _____

3. Mailing Address: _____

   _____

4. Telephone Numbers: Business: (   )_____-_____

   Emergency: (   )_____-_____

   Fax: (   )_____-_____

5. Chief Executive Officer: Name: _____

   Title: _____

   Telephone (work)   (   )_____-_____

   Telephone (home)   (   )_____-_____

   Telephone (cell)   (   )_____-_____

   Email: _____

6. Contact Person   Name: _____

   Title: _____

   Telephone (work)   (   )_____-_____

   Telephone (home)   (   )_____-_____

   Telephone (cell)   (   )_____-_____

   Email: _____

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP)

Insights on the development and characteristics of these innovative healthcare initiatives, based on national survey data

Presented by the National Association of Emergency Medical Technicians

NAEMT

Serving our nation's EMS practitioners

naemt.org

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For more information and resources
on MIH-CP, visit naemt.org

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP): A National Survey

Over the past several years, two new types of patient care offered by EMS agencies have generated tremendous interest within EMS and the wider health care community. Called mobile integrated healthcare and community paramedicine (MIH-CP), many believe these innovations have the potential to transform EMS from a strictly emergency care service to a value-based mobile healthcare provider that is fully integrated with an array of healthcare and social services partners to improve the health of the community.

Though still evolving, MIH and CP programs operating around the nation are providing a range of patient-centered services, including:

- Sending EMTs, paramedics or community paramedics into the homes of patients to help with chronic disease management and education, or post-hospital discharge follow-up, to prevent hospital admissions or readmissions, and to improve patients' experience of care.

- Navigating patients to destinations such as primary care, urgent care, mental health or substance abuse treatment centers instead of emergency departments to avoid costly, unnecessary hospital visits.

- Deploying telemedicine to connect patients in their homes with caregivers elsewhere.

- Providing telephone advice or other assistance to non-urgent 911 callers instead of sending an ambulance crew.

To add to the EMS profession's understanding of the development, characteristics and status of MIH-CP in the United States, NAEMT conducted a comprehensive survey in late 2014 of the nation's currently operating MIH-CP programs.

This summary analysis reports the results of that survey, and the conclusions that can be drawn from the data. Analysis was provided by our author team, which includes several of the nation's MIH-CP thought leaders, medical directors and MIH-CP program administrators.

Survey finds much enthusiasm, significant obstacles

The survey identified more than 100 EMS agencies that have worked diligently over the past several years to determine their communities' needs, build partnerships to launch these innovative programs and contribute to solving the key issues facing American healthcare.

The promise of these programs has garnered the attention of a broad spectrum of stakeholders, ranging from hospitals to physicians groups, private insurers and the Centers for Medicare and Medicaid Services (CMS). The interest has enabled some MIH-CP programs to secure grants to cover the initial development and operation of their programs. The largest and most well publicized funding came from the CMS Innovation Center, which awarded grants to several EMS agencies and their partners beginning in 2012 to study the effectiveness of MIH-CP programs in achieving the Institute for Healthcare Improvement's Triple Aim: improving the patient experience of care, improving the health of populations and reducing the per capita cost of healthcare.

Outside of the federal grants, other EMS agencies have been successful in securing grants from foundations, or in negotiating contracts with partners such as hospitals, Medicaid managed care organizations, home health agencies, hospice agencies and private insurers. Those contracts may include payments for MIH-CP services based on fee-for-service, a per-patient or capitated fee, or other shared savings arrangements.

Yet most EMS agencies launching MIH-CP programs have and continue to fund these programs out of their existing budgets – a sign of their dedication but worrisome from a financial perspective.

Compounding these challenges, the newness of EMTs and paramedics taking on new responsibilities, albeit ones within their scope of practice as defined by state laws and regulations, has also raised concerns among some regulators, nurses and other health professionals who question whether EMS should be permitted to offer MIH-CP.

Data provides a national snapshot

To date, the data collected by this survey and analyzed in this summary represents the only compendium of information from the nation's currently operating MIH-CP programs. Respondents, who included EMS agency directors, medical directors, and MIH-CP program managers and practitioners, represent diverse communities and provider types, from 33 states and the District of Columbia.

NAEMT would like to thank the respondents who took the time to tell us about their programs. We would also like to thank NAEMT's Mobile Integrated Healthcare-Community Paramedicine Committee for developing the survey questionnaire, and our author team for generously providing their time and insights in analyzing the data.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):
A National Survey

Community paramedics from Baxter Regional Medical Center in Arkansas provide post-discharge follow-up visits and connect patients to primary care.

Survey Targets

Between April and October 2014, NAEMT conducted a thorough search to identify MIH and CP programs in the United States. Sources included:

- An earlier NAEMT MIH-CP survey widely distributed in 2013 by NAEMT and several other national EMS organizations as part of the Joint National EMS Leadership Forum.
- Media reports and Google searches.
- Other written materials, such as white papers and research studies, that referenced MIH or CP programs.
- Interviews with EMS industry contacts.
- Information provided by state EMS offices.
- Phone calls and emails to individual EMS agencies.

To determine inclusion as an MIH-CP program, we used the definition for MIH-CP contained in the MIH-CP Vision Statement, spearheaded by NAEMT and endorsed by more than a dozen national EMS and emergency physicians' organizations in 2014. The Vision Statement defines MIH-CP as being fully integrated; collaborative; data-driven; patient-centered and team-based. Examples of MIH-CP activities can include, but are not limited to, providing telephone advice instead of resource dispatch; providing chronic disease management, preventive care or post-discharge follow-up; or transport or referral to care beyond hospital emergency departments.

Because there is no strict definition of MIH-CP, however, we had to make judgment calls about inclusion. For example, one EMS agency in a remote mining area of Alaska indicated they utilized telemedicine to connect patients with physicians in larger cities; this agency was not included because the goal was to provide assistance with acute situations, not education, preventive care or assistance with chronic disease management. We also did not include EMS agencies that described a high level of community involvement, such as providing community education on accident or falls prevention, teaching CPR, or conducting health screenings, but did not include any of the other elements of MIH-CP.

Questionnaire covers all aspects of MIH-CP

The survey was crafted with the input of the NAEMT MIH-CP Committee and included more than 50 questions asking respondents to describe all aspects of their MIH-CP program, including program activities, partners, agency demographics, medical direction, funding, revenue, goals and data collection.

In September and October 2014, the survey was distributed to approximately 150 agencies that were either known or thought to have an MIH-CP program. During that time, NAEMT continued to do outreach to refine the list of agencies with confirmed MIH-CP programs.

As of November 2014, we received a total of 137 responses. Of those, 26 did not have MIH-CP programs; 111 did. Two did not provide any identifying information and were eliminated; two were significantly incomplete and could not be used. Four were duplicate answers from the same agency, so only one from each agency was included, for a total of 103 completed surveys.

Based on our search, we can say with confidence that this represents the vast majority of MIH-CP programs nationwide at the end of 2014.

However, it should be noted that new programs are coming on board every month, so by now there may be more. Our search also yielded many programs reportedly in the final stages of development or awaiting final grant or regulatory approval, such as the dozen programs that are part of the California pilots slated for launch in the first half of 2015 and six programs slated to launch in Michigan, also this year. These were not included.

100+ Agencies in 33 States, Wash., D.C. and Counting: Who's Doing MIH-CP

Though the concept of community paramedicine had its start in rural areas, today mobile integrated healthcare and community paramedicine programs operate in a range of community types.

[COMMUNITY TYPES]

| Urban | **54%**
| Suburban | **44%**
| Rural | **36%**
| Super rural | **13%**
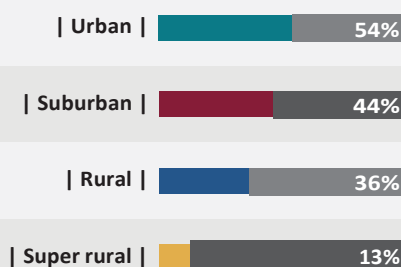
About half (53 percent) of MIH-CP programs launched in the past year. Only 20 percent have been in operation two years or longer.

[TIME IN OPERATION]

| < 3 months | **10%**
| 3-6 months | **16%**
| 6 months - 1 year | **28%**
| 1 - 2 years | **26%**
| 2 - 3 years | **8%**
| > 3 years | **13%**

states with MIH-CP

states with no MIH-CP
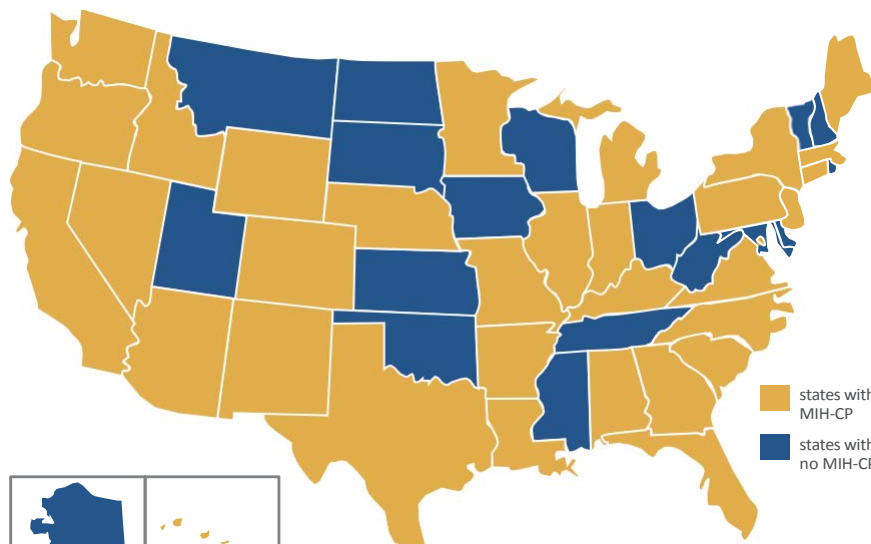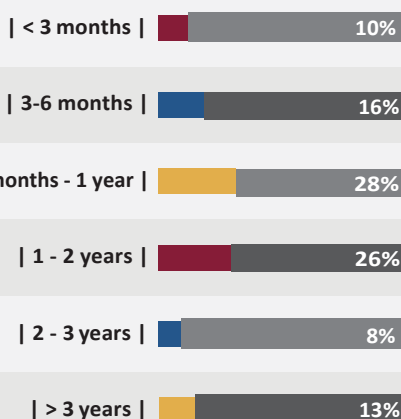
[RESPONSES]
Total number of MIH-CP program responses: 103

Information about MIH-CP in Alabama came in after the survey concluded.

Agency geographic service areas range from compact cities to sprawling rural and super rural regions.

[GEOGRAPHIC AREA COVERED]

| Less than 250 square miles | **35%**
| 250 to 1,000 square miles | **35%**
| More than 1,000 square miles | **29%**
| Don't know | **1%**
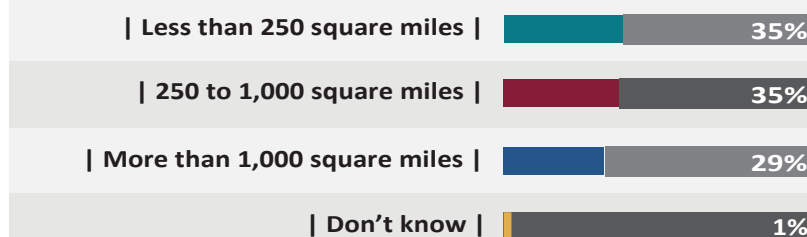
Call volume is also divided among high-volume urban and low-volume rural EMS.

[CALL VOLUME]

| Less than 250 square miles | **35%**
| 250 to 1,000 square miles | **35%**
| More than 1,000 square miles | **29%**
| Don't know | **1%**
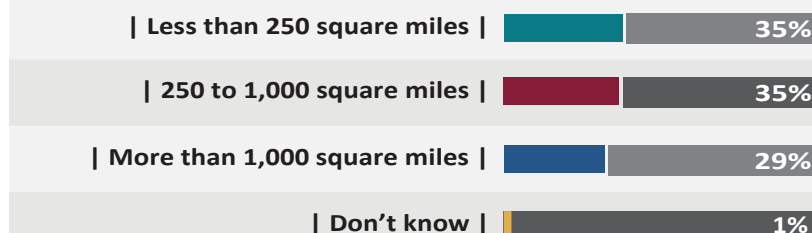
The Important Role of the
Community Needs Assessment

There is broad consensus within EMS that MIH–CP programs are not one-size-fits-all, but should be developed to meet community needs. It's also widely accepted that MIH-CP programs should not duplicate or compete with already existing services, and instead fill gaps in existing services. The way to determine where those gaps are is through a community needs assessment as part of the MIH-CP planning process.

95% Agree that their MIH-CP program is filling a resource gap in their local community

74% Agree that their program is based on the defined needs of their community as expressed by local stakeholders

While that premise seems self-evident, "community needs assessment" is a term more familiar to public health professionals than first responders, and may mean many things to many people. The survey sought to describe the nature and source of community needs assessments within operating MIH-CP programs.

According to survey responses, **three in four agencies (77 percent) report conducting a community needs assessment.** Yet when a question about conducting a community needs assessment was asked in a slightly different way – whether they agree or disagree with the statement, "Your program is based on a formal community needs assessment" – the responses were somewhat different. Only half (51 percent) agreed, 25 percent were neutral, and 21 percent disagreed. This perhaps indicates confusion over what constitutes a "formal" versus an "informal" community needs assessment.

Sources of data, stakeholder input

Of agencies that conducted a community needs assessment, the most commonly used data source is EMS data (87 percent), followed by population demographics (63 percent), hospital discharge data (55 percent), emergency department data (54 percent), public health data (41 percent), other data (12 percent), and law enforcement data (11 percent). Only 2 percent of agencies say they used no external data.

When asked to describe their community assessment, many agencies report having meetings, roundtables and establishing working groups or steering committees involving a variety of stakeholders, including hospitals, social services, mental health, law enforcement, assisted living facilities, public and private payers and public health departments.

MIH-CP programs should strive to reach patients before they become frequent users

Based on this survey, EMS agencies engaged in MIH-CP rely predominantly on data from individuals who utilize EMS services or have been cared for by the hospital system. This focus may hinder the MIH-CP system from gaining a full understanding of the needs of their community, such as individuals who have not accessed the 911 or hospital system but who may have significant care needs. As MIH-CP continues to develop, a long-term goal may be to reach members of the community before their health or psychosocial issues have deteriorated to the point where they become frequent users of hospitals and EMS systems.

Programs in existence for over two years were more likely to use a wider variety of data in assessing community need.

A narrow focus on patients already on the radar of hospitals and EMS may also restrict available payer sources. While focusing on this group of patients offers the opportunity for a "cost savings" source of revenue, it misses other potentially reimbursable patient encounters from the large pool of individuals who have not been hospitalized.

To identify these patients and gain a more complete look at community needs, MIH-CP systems should strive to use as many data sources as possible to identify the needs of a much broader population within the community.

It's worth noting that programs in existence were more likely to use data other than EMS data – 86 percent used population demographics, 62 percent used public health data, 62 percent used emergency department data, 19 percent used law enforcement data, and 19 percent used other data – suggesting that longer-duration programs use a broader set of community health data when evaluating healthcare gaps in their community.

NAEMT

NAEMT

Medical Direction Involves Multidisciplinary Collaboration

In emergency response, the role of the physician medical director is to ensure quality patient care. Responsibilities include involvement with the design, operation, evaluation and quality improvement of the EMS system. The medical director has authority over patient care, and develops and implements medical protocols, policies and procedures.

The role of medical direction in MIH-CP is in some ways similar, with protocol development (88 percent) topping the list of responsibilities. However, because MIH-CP focuses on coordinating care over a longer period than the typical EMS call, medical direction in the MIH-CP context may include additional responsibilities, often done in collaboration with primary care or other healthcare providers outside of the EMS agency. That can include the development and approval of care plans (62 percent), phone consultations (64 percent) and telemedicine consultation (18 percent).

Others who provide medical direction and advice to MIH-CP programs

Primary care physicians (52 percent), on-call emergency physicians (29 percent) and specialty physicians (32 percent) are also called upon to provide medical direction or advice regarding MIH-CP patient care. Other sources of medical direction named by one or more respondents included other hospital physicians, physician assistants, surgical nurse practitioners, RN case managers and psychiatrists.

This collaboration is evident in the more than half (51 percent) of respondents who say that they obtained approval from partner organizations for their clinical protocols.

Breaking down silos: MIH-CP is team-based

From medical homes to care teams to accountable care organizations, the concept of collaborative, integrated, patient-centered care is a major theme of healthcare reform – and MIH-CP.

77% Agree that their program is a multidisciplinary practice of medicine overseen by physicians and other healthcare practitioners

70% Agree that their program is team-based and incorporates multiple providers, both clinical and non-clinical

96% Agree that their program is patient-centric and focused on the improvement of patient outcomes

1 in 4 agencies

report using telemedicine in their MIH-CP programs. It was not specified whether that involves specific telemedicine applications or more commonplace EMS activities, such as ECG transmission.

EMS Medical Director Role

88% Protocol development/ approval

64% Phone consultation

62% Development/approval of care plans

42% Guidance on alternative destinations

18% Live online telemedicine consultations

Hours of medical direction/ oversight provided per week

Less than 10	**79%**
10 to 20	**16%**
More than 20	**4%**

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP): A National Survey
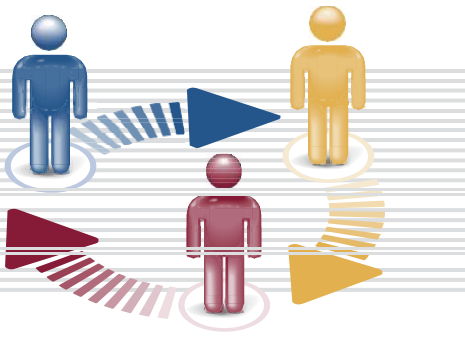
MIH-CP Programs Partner With an Array of Healthcare, Social Services Agencies

69%

of MIH-CP programs receive referrals from hospitals

Mobile integrated healthcare by definition integrates with all entities that impact patient care and wellness. This integration is necessary for multiple reasons.

Patients who have frequent contact with EMS and hospitals often have multiple medical problems, comorbidities and complex psychosocial circumstances. These health issues cannot be solved by a single entity, but instead require the expertise of a variety of healthcare providers, social services agencies and community resources. For EMS, these partnerships enable MIH-CP

programs to match each patient's needs with the right resource.

Referrals go both ways

Partnering works in two directions: the MIH-CP program can receive referrals from the partner agency, or the MIH-CP program can refer patients to the partner agency.

According to survey responses, **hospitals are the most commonly cited source of referrals *to* MIH-CP programs**, with 69 percent of MIH-CP programs reporting receiving referrals from hospitals, followed by

Organization Key

A. Home Health Organizations

B. Hospices

C. Hospitals

D. Law Enforcement Agencies

E. Mental Health Care Facilities

F. Nursing Homes

G. Other EMS Agencies

H. Primary Care Facilities

I. Public Health Agencies

J. Physician Groups

K. Community Health Clinics

L. Urgent Care Facilities

M. Social Service Agencies

N. Addiction Treatment Centers

A. 34% B. 24% C. 69% D. 35% E. 20% F. 22% G. 28% H. 45% I. 32% J. 38% K. 34% L. 18% M. 38% N. 12%
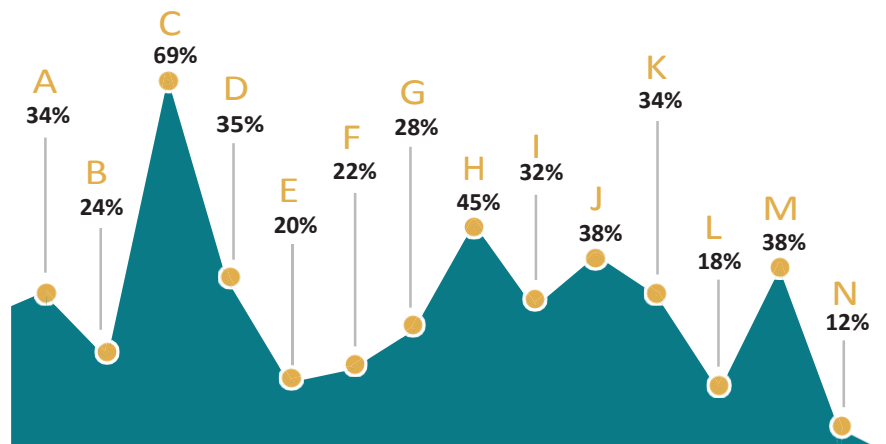
[REFERRALS]
The partner organization refers patients to the MIH-CP program

A. 66% B. 36% C. 35% D. 14% E. 50% F. 26% G. 19% H. 53% I. 48% J. 38% K. 47% L. 44% M. 62% N. 49%
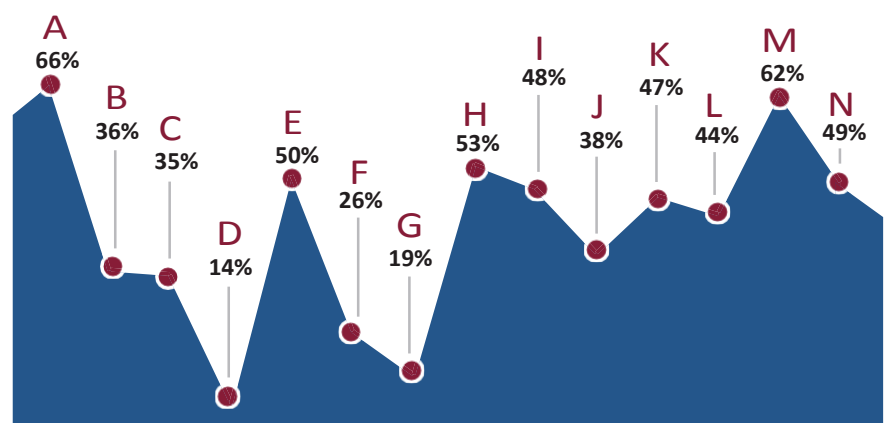
[REFERRALS]
The MIH-CP program refers patients to the partner organization

[SOURCES]
of MIH-CP program enrollment

67% hospital referrals

58% other healthcare provider referrals

57% EMS practitioner referrals

47% primary care physician referrals

34% general public referrals

27% 911 dispatch
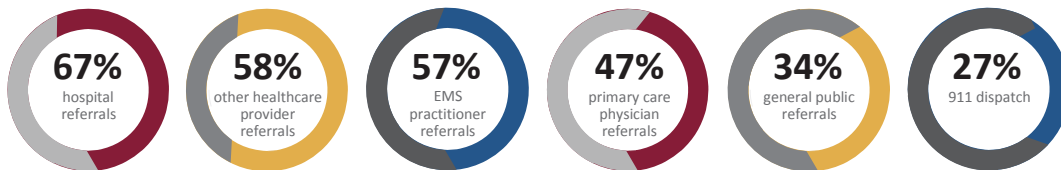
primary care facilities (45 percent), physicians groups (38 percent), social services agencies (38 percent), law enforcement (35 percent), home health (34 percent) and community health clinics (34 percent).

66%
of MIH-CP programs refer patients to home health

In seeking solutions for their patients, **MIH-CP programs are most likely to refer their patients *to* home health** (66 percent), followed by social service agencies (62 percent), primary care (53 percent), mental health facilities (50 percent), addiction treatment centers (49 percent), public health agencies (48 percent) and community health clinics (47 percent).

How patients come to the attention of MIH-CP programs

MIH-CP programs are made aware of prospective patients from a variety of sources. Hospital referrals are the primary portal to MIH-CP programs (67 percent), followed by referrals from other healthcare entities (hospices, home health care, mental health care and others) at 58 percent and primary care physicians (46 percent).

EMS sources, including referrals from fellow EMS practitioners (57 percent) and dispatch (27 percent) are also important in making MIH-CP programs aware of potential patients.

Awareness of the value of MIH-CP programs appears to grow over time

When isolating the data for programs with two or more years of experience, fellow EMS practitioners become the most likely to refer to MIH-CP programs (81 percent). While hospital referrals rema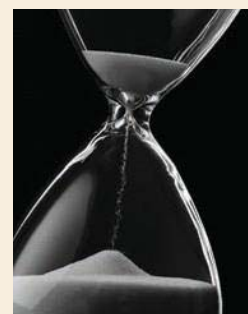in strong at 67 percent, referrals from other healthcare providers now come in at 71 percent, followed by dispatch and primary care, both at 52 percent. **The increased percentage of referrals from nearly all sources may indicate that over time, EMS practitioners and other healthcare providers accept MIH-CP and see the value it can bring.**

[CHARACTERISTICS OF MIH-CP PROGRAMS]

| **75%** | READMISSION AVOIDANCE
| **74%** | MANAGE FREQUENT EMS USERS
| **71%** | CHRONIC DISEASE MANAGEMENT
| **52%** | ASSESSMENT & NAVIGATION TO ALTERNATE DESTINATIONS
| **44%** | PRIMARY CARE/PHYSICIAN EXTENDER MODEL
| **30%** | OTHER*
| **6%** | 911 NURSE TRIAGE
| **5%** | ALL OF THE ABOVE
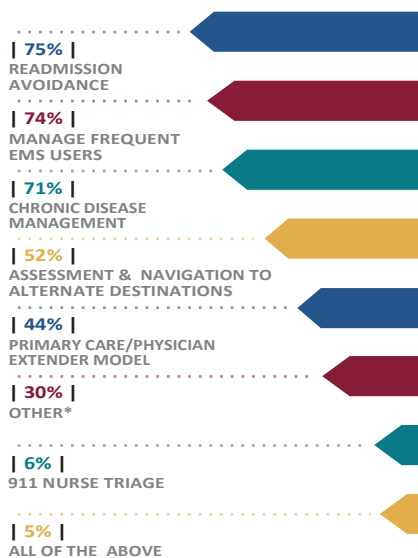
mental health, hospice support, fall prevention

[STAFFING]
Respondents report employing or contracting with many types of practitioners for MIH-CP programs

| **77%** | PARAMEDICS
| **26%** | EMTs
| **21%** | FIREFIGHTER PARAMEDICS
| **20%** | PHYSICIANS
| **18%** | NURSES
| **17%** | CASE/SOCIAL WORKERS
| **16%** | FIREFIGHTER EMTs
| **12%** | OTHER*
| **9%** | NURSE PRACTITIONERS
| **3%** | PHYSICIAN ASSISTANTS
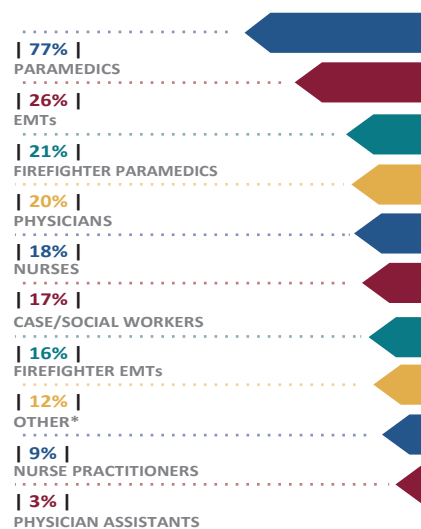
pharmacists, crisis counselors, patient navigators, residents, physical and occupational therapists

35% Re-tasking of duty clinical staff

23% Dedicated, full-time

18% Combination of full and part-time

12% Dedicated, part-time

11% Other

[MIH-CP CLINICAL STAFFING MODEL]
Some MIH-CP practitioners are dedicated full-time to MIH-CP; others split their time between MIH-CP and emergency response or other duties.

Partnerships Are About More Than Referrals

Partnering with stakeholders is not only about referrals. Some partners provide financial support, which may include direct payments for services, but can also include assistance with staffing, supplies or other resources, while others provide oversight and direction to MIH-CP programs.

[DIRECT FINANCIAL SUPPORT]
Who provides direct payments for MIH-CP services?

15% hospitals	5% hospice	4% public health agencies	4% nursing homes	2% physician groups

[OTHER FINANCIAL SUPPORT]
Who provides other financial support for MIH-CP services?

25% hospitals	5% physician groups	5% primary care facilities	4% home health organizations	3% mental health facilities

[OVERSIGHT/DIRECTION]
Who provides direction and oversight?

33% hospitals	12% public health agencies
12% physician groups	11% primary care facilities
9% home health organizations	7% hospices
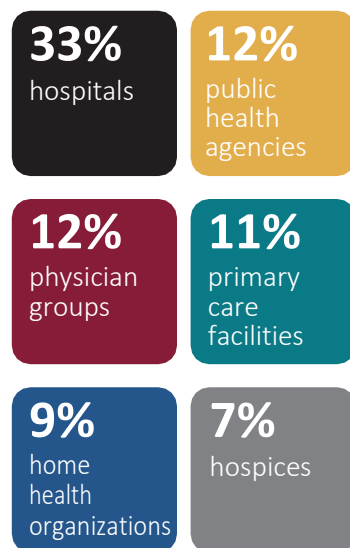
Is EMS doing everything it can to develop partnerships?

With more than half (54 percent) of respondents reporting that their programs are a year old or less, it is understandable that some may not have fully developed the necessary partners within their communities.

Still, more than half (58 percent) of respondents view their MIH-CP program as fully integrated into the healthcare system. Among programs in operation for two or more years, 66 percent agree that their program is fully integrated.
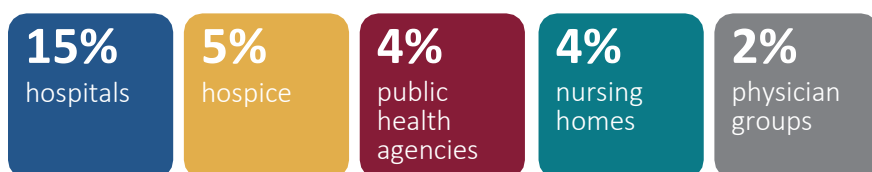
EMS agencies report challenges establishing partnerships for a variety of reasons, including:
- other healthcare providers not understanding the EMS role in an MIH-CP program
- fears among home health agencies that EMS participation in providing services in the home outside of answering 911 calls represents competition
- potential partners not seeing a clear financial incentive for partnering with EMS.

Though 34 percent of respondents agree that "opposition from other healthcare providers such as physicians, nurses or home health is a significant obstacle to sustaining or growing their MIH-CP programs," an almost equal number (32 percent) disagree that opposition is a barrier.

And there is reason for optimism.

87% Agree that support for MIH-CP programs is growing among partners such as hospitals and other healthcare providers

96% Agree that the number of patients served by their MIH-CP program will grow in the next five years.

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Experience Tops Qualifications
Sought in MIH-CP Practitioners

| 61% Developed internally | 20% College-based | 13% Used another MIH-CP program's training | 5% Outside contractor |

[TRAINING PROGRAM DEVELOPMENT]

While the medical skills performed by EMS personnel participating in MIH-CP tend to be consistent with their emergency response training and experience, the *focus* and *context* of their clinical roles are very different. The practice of EMS is focused on rapid assessment, provision of resuscitative or supportive care within a narrow set of protocols, and transport to a hospital-based emergency department. In contrast, the practice of MIH-CP is focused on longitudinal assessment, participation in an existing, multidisciplinary, interprofessional treatment plan, and communication with and referral to other members of the treatment team based on changing patient needs. Contextually, care shifts from episodic evaluation and care of patients independent of their existing medical care plan to longitudinal monitoring and adjustment of care as a part of a medical care plan.

Asked what specific training or experience qualifications are required of MIH or CP employees, field experience was most often mentioned, with about one in four respondents specifying that MIH-CP practitioners had to have between one and 10 years of field work experience (usually paramedic).

Smaller numbers mentioned communications skills, positive attitude and a customer service focus as specific candidate competencies. As for specific credentials, several stated that critical care transport paramedic training was required or preferred, while several stated other certifications were required, including EMT, registered nurse, nurse practitioner and social work.

A few require some college or a college-based community paramedic certification. About one in four answered there were no special requirements.

Hennepin Technical College in Brooklyn Park, Minn. and Colorado Mountain College are the two most-often mentioned college-based training programs.

"Borrowed" training programs include: Eagle County Paramedic Services, Wake County EMS, MedStar Mobile Healthcare, Mesa Fire Department and FD CARES.

Training topics

Nearly all respondents require some type of additional training for their MIH-CP practitioners. Clinical topics (67 percent), patient relations/communications (66 percent), accessing community programs and social services (63 percent) and patient navigation (59 percent) topped the list.

Length of training

The length of training varied widely, as did the inclusion of clinical rotations or field training hours.

[CLASSROOM HOURS REQUIRED]

| 43% Less than 40 hours | 18% 40-80 hours | 18% 80-120 hours |
| 11% 120-140 hours | 4% More than 240 hours | 6% Don't know |

[CLINICAL ROTATIONS/FIELD TRAINING HOURS REQUIRED]

| 49% Less than 40 hours | 16% 40-80 hours | 10% 80-120 hours |
| 16% 120-140 hours | 4% More than 240 hours | 6% Don't know |

Wide variations in training, education and certification requirements may jeopardize reimbursement opportunities

Overall, the survey data suggests that the majority of programs select experienced EMS practitioners for MIH-CP programs, and that they require additional training to perform these roles. However, the nature, duration and content of that training is widely variable, suggesting that the preparation, knowledge base and level of skill of EMS personnel who currently practice within MIH-CP systems is inconsistent.

This inconsistency could raise concerns among potential partners or payers about patient safety, clinical results or patient experience, and may reduce opportunities for reimbursement from payers who are more accustomed to well-defined and seemingly more clinically predictable providers of care.

EMS must continue to work toward creating consensus among stakeholders to define what MIH-CP clinical practice is, and from there create standards for skills, training, education and proof of competency.

Clinical Services Seek To Avoid Unnecessary Emergency Department Visits, Hospital Stays While Improving Patient Quality of Life

The clinical services provided by MIH-CP practitioners can be broadly grouped into three categories that may be part of an ongoing health maintenance program, or as part of a goal directed therapy or lifestyle modification.

1. **Assessment and evaluation**
2. **Post-discharge follow-up**
3. **Prevention and education**

Common to all is that the MIH-CP program facilitates this without the requirement for a hospital or clinic visit, although the assessment may result in a recommendation to visit a clinic or other healthcare provider. The goal is always to direct patients to the most appropriate, convenient, least costly type of healthcare or social services provider qualified to take care of their needs.

1 Assessment and evaluation

While the vast majority of MIH-CP programs indicate they assess patients, the survey does not make clear what is being done with the information gathered, including whether clinical decision-making is autonomous, based on an algorithmic process or in consultation with the EMS medical director or other healthcare provider.

Assessment and evaluation encompasses multiple service lines, including general assessment, which most often includes history and physical (89 percent) and medication reconciliation (82 percent); along with laboratory tests and disease-specific care.

In-home lab services key to MIH-CP assessment and evaluation services

As with disease-specific care,

respondents were most likely to offer services that were already within the scope of practice of typical EMS agencies such as blood glucose measurement (70 percent) and blood draw services (41 percent). About one in five (19 percent) agencies report the addition of iSTAT (blood analysis) point of care testing. A surprising number of agencies had expanded their services to include urine collection (26 percent) stool collection (13 percent) and throat swab cultures (12 percent).

Disease-specific care relies on standard EMS equipment, skills

Disease-specific care offered by MIH-CP is most often targeted at common cardiovascular and pulmonary diseases such as congestive heart failure (CHF), chronic obstructive pulmonary disorder (COPD) and asthma. Most of these services utilize equipment and training readily available to EMS providers, such as blood pressure (85 percent), 12 lead EKG (70 percent) and oxygen saturation measurement (78 percent).

[RESPIRATORY SERVICES]

78% Oxygen Saturation Check

69% Asthma Meds/ Education/ Compliance

53% Nebulizer Usage/ Compliance

41% Capnography Assessment

31% Peak Flow Meter Usage/ Education

30% MDI Use

28% CPAP
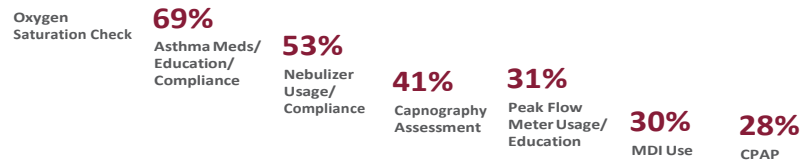
[CARDIOVASCULAR SERVICES]

85% Blood Pressure Check

70% EKG 12 Lead

40% Peripheral Intravenous Access

[ASSESSMENT AND EVALUATION SERVICES]

89% History and Physical

61% Weight Check

61% Post Injury Evaluation

44% Stroke Assessment and Follow-up

8% Ear Exam

[LABORATORY SERVICES]

70% Glucose Check

41% Blood Draw

26% Urine Collection

19% iSTAT

13% Stool Collection

12% Throat Swab Culture
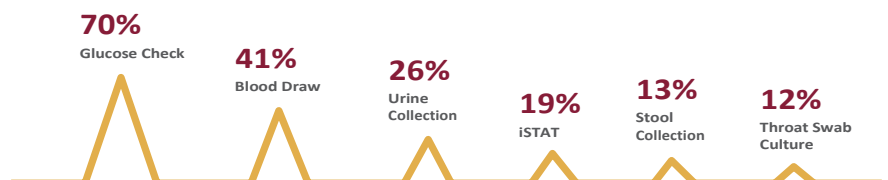
The important role of patient navigation

While many of the clinical MIH-CP services provided seem directed at managing patients at home, the number of patients that can be meaningfully impacted and the cost effectiveness of this approach remain to be proved. Another area where MIH-CP may have significant impact on patient outcomes and costs is through improved patient navigation, or the direction of patients to the appropriate resource.

59% provide practitioners with training in patient navigation

EMS agencies should make effective use of their unique role in the healthcare system. EMS is often patients' initial contact with healthcare. Patients may not know the optimal resource for their current clinical need. Yet they do know that they can call 911 when they need help and EMS practitioners will come to their aid, quickly. These patients represent an opportunity for EMS to have meaningful impact on healthcare costs by navigating each patient to the correct resource at their initial contact with the healthcare system.

That said, it's important to note that the ultimate goal of MIH-CP is not merely to move the burden of caring for patients to other parts of the healthcare system, but to help patients get on the road to self-management, and better health and quality of life so that they need fewer healthcare resources overall.

63% of MIH-CP programs provide practitioners with training in accessing community programs and social services

Some MIH-CP programs, however, have significantly expanded their assessment and management of these disease processes beyond what EMS would typically do. For example, at least one program indicated that they offered in-home diuresis of CHF patients. For pulmonary disease, more than half of respondents indicated they offered education related to asthma medication compliance (69 percent), nebulizer use (52 percent) and peak flow meters (31 percent).

2 Post-discharge follow-up

Given the financial ramifications of extended hospital stays for non-acute care and the financial penalties assessed on hospitals with high rates of readmissions, follow-up visits in the home in the hours or days after hospital discharge is a potentially important way for MIH-CP programs to show value. Still, the data suggests some uncertainty about the specifics of the services delivered – for example, 44 percent of respondents say they do stroke assessment and follow-up, while only 27 percent said they do neurologic assessments.

3 Prevention and education

Prevention and education play an important role in preventing the next unscheduled acute care event or 911 call. MIH-CP practitioners are highly involved in providing these services to their communities.

[POST-DISCHARGE FOLLOW-UP SERVICES]

- **70%** | Discharge follow-up
- **38%** | Dressing changes/wound check
- **31%** | Post-surgery care
- **27%** | Neurological assessment

[PREVENTION SERVICES]

- **92%** | Falls risk assessment
- **71%** | Social evaluation/support
- **43%** | Nutrition assessment
- **25%** | Psychiatric assessment

[PATIENT EDUCATION SERVICES]

- **62%** | hypertension screening/education
- **59%** | diabetes screening/education
- **48%** | physical activity screening/education
- **28%** | Dietary sodium reduction
- **25%** | Obesity screening/education
- **12%** | Cholesterol screening/education
- **5%** | Cancer self-exam awareness

How long do patients stay enrolled in MIH-CP programs?

The goal of MIH-CP programs is typically to "graduate" patients out of the program, which is often the point where they no longer rely on frequent contact with the 911 or hospital system. Often, getting patients ready for graduation first means getting them connected with primary care, mental healthcare providers and other services best equipped to take care of complex medical and psychosocial issues.

The average time patients are seen by MIH-CP practitioners is highly individual, with respondents reporting a range of less than 30 days (41 percent), 31 to 90 days (36 percent), 91 to 180 days (14 percent) and greater than 180 days (8 percent).

22% say their MIH or CP practitioners have an advanced scope of practice

77% say their MIH or CP practitioners do not

Tri-County Health Care EMS

Rural, hospital-based ambulance provider takes referrals from physicians to reduce readmissions, improve access to care

In 2012, Minnesota became the first (and still only) state to pass legislation authorizing Medicaid reimbursement of EMS-based community paramedics.

The rate is 80 percent of a physician assistant's office visit charge, or $17.25 per 15-minutes of patient interaction. There is no payment for drive time, fuel or supplies.

To be seen by a community paramedic, a physician has to give an order, and it must be part of a care plan established by the physician. In December 2013, community paramedics at Tri-County Health Care EMS, based in rural Wadena, Minn., began

IMAGES PROVIDED BY TRI-COUNTY

receiving referrals from hospital physicians and primary care physicians at the hospital's five rural clinics.

"We provide post-hospital discharge visits for patients at high-risk of readmission," says Allen Smith, Tri-County Health Care emergency response manager. "We also work with primary care physicians to help prevent unnecessary ambulance trips and emergency department visits and to ensure patients are accessing all of the health resources available to them in the community."

Tri-County community paramedics also work closely with the hospital's nurse care coordinator, and function as part of the hospital's "medical home" clinical team.

Help from grants

Funding for the program came from a Minnesota Department of Health grant, which sent five paramedics to the community paramedic course at Hennepin Technical College. A three-year, $300,000 grant from the South Country Health Alliance, a Medicaid managed care organization that serves a four-county area, covers the cost of data analysis and staffing a community paramedic 24 hours a week. The hospital also funds community paramedic staffing for 24

hours, while the remainder comes out of the EMS budget.

To achieve 24-7 community paramedicine coverage, five community paramedics also answer 911 calls during their shift.

Starting small to prove safety, effectiveness

Prior to launch, Tri-County sought input from community partners, including public health, mental health, home health and members of the public. Wanting to proceed cautiously and build confidence in their program among physicians who they rely on for referrals, they started with a limited number of patients, Smith says.

The Tri-County team also worked with the hospital's electronic medical records software experts to enable community paramedics to access and input information into patients' medical records.

"Without that connection to the electronic medical record, the information would not get back to the physician. At our rural hospital, we use almost no paper charts," says Dr. John Pate, EMS medical director and a family practice physician.

Community paramedics aim to see patients within 24 hours of referral. Enrolled patients receive a home visit and

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> "We have to show that what we do is making an improvement in patients' health, their ability to have a good quality of life and that they are satisfied with the care received."
>
> – Allen Smith, Emergency Response Manager, Tri-County Health Care EMS

assessment; a review of their care plan and education about managing chronic diseases; medication reconciliation; and any tests or treatments ordered on the care plan, such as blood draws, wound care or injections.

Patients are seen as often as daily for two to four weeks. The first visit is typically 60 to 90 minutes; subsequent visits last 30 minutes. Every two weeks, a multidisciplinary team, which includes a community paramedic, social worker and nurse care coordinator, evaluates each patient's progress and determines if the patient is ready to graduate or needs additional help. "It's all individualized based on the patient's needs," Smith says. "There is a lot of gray to this."

In 2014, community paramedics saw 203 patients with diagnoses that include COPD, asthma, congestive heart failure and psychiatric issues. Most are elderly and need the extra support to continue to live independently, Pate says.

Other referrals come from an orthopedic surgeon, who sends community paramedics into the homes of knee and hip replacement patients to conduct falls risk assessments, and an area nursing home, which brings in community paramedics to do blood draws, tracheostomy care and feeding tube care to prevent their patients from needing to travel to a clinic or hospital.

While EMS agencies in other states have reported conflicts with home health, this is not an issue in Minnesota, he says. "We are not home health. For patients to receive home health, they must have a payer source that covers it, and they must be homebound," Smith says. "We see patients who don't qualify for home health. We are also affiliated with a licensed home health agency, and we also refer patients there."

Getting on a path to financial sustainability

Even though the only available reimbursement is for the 15 percent of patients who have Medicaid, Tri-County's community paramedics see patients regardless of their insurance status. In 2014, reimbursements from Medicaid totaled about $10,000 – not enough to cover costs. They hope to eventually have data to share with commercial insurers so that they can negotiate shared savings arrangements.

One challenge, however, has been deciding what data to collect and what outcomes to measure. Unlike urban areas, frequent users are not a big problem for the Wadena area. They do have a few though, and estimate that their community paramedic program saved $100,000 in ambulance transport and

emergency department charges in 2014.

"A lot of the activities our community paramedics do involve checking up on patients. They might go out and see if an oxygen generator is working properly, or if they know how to use a nebulizer machine, or whether the medicine they have is what they were supposed to get," Pate says. "In one case a gentleman was sitting there trying to use a nebulizer but he hadn't turned on the machine. He would have ended up back in the ER. But how do you measure the impact of that? What is the true benefit?"

One strategy they plan to try is having patients fill out a quality of life questionnaire before and after enrollment. They will have their first results in the next six months.

"Part of our hospital's mission statement is to achieve the Triple Aim, which is improving patient health, improving the patient experience of care, and reducing costs," Smith says. "So how do I make sure my EMS agency is of value to my hospital? How do I ensure my people have jobs in the future? It's no longer, 'You call, and we haul.' We have to show that what we do is making an improvement in patients' health, their ability to have a good quality of life and that they are satisfied with the care received."

Tri-County's tips for success

1 **Start small** and gradually build acceptance of your program among physicians and other healthcare providers who you will need to provide your program with referrals.

2 **Think local.** "My program wouldn't work in Ft. Worth, or in New York City, and their program wouldn't work here. Your program needs to fit local needs," Smith says.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):
A National Survey

MedStar Mobile Healthcare paramedics conduct post-discharge home visits with patients in Ft. Worth.

Regulatory Barriers Pose Challenges

EMS is governed by laws and regulations that vary from state to state. In launching MIH-CP programs, one challenge for agencies is determining whether their state's statutes and regulations allow or prohibit EMS from engaging in MIH-CP.

Surveys of state EMS offices by the National Association of State EMS Officials (NASEMSO) indicate that in a large number of states, laws and regulations are interpreted as permitting MIH-CP; in others, statutory and/or regulatory language is interpreted as prohibiting it; while some have not yet interpreted their statutes. Anecdotally, EMS agencies frequently report that it can be hard to discern what, if any, MIH-CP activities their local regulations or their state attorney general would permit.

It is perhaps for that reason that **more** than half of respondents (57 percent) see statutory or regulatory policies as obstacles to MIH-CP.

It should be noted these responses include only the states where there

> **"Don't give up. It's going to be one of the most difficult things you do as an EMS agency due to all of the regulations. If you remember this is the next step in helping the citizens of your jurisdiction and you repeat that to anyone who questions the program, you will maintain a positive attitude and be a champion for your program."**
>
> – Survey respondent

are operating MIH-CP programs. In the states where there are no MIH-CP programs, prohibitive statutes or regulations, or perceptions of those, may be a reason why programs are unable to get off the ground. Another possibility is there isn't enough interest in MIH-CP yet.

Moving ahead with innovation despite barriers

Even in states in which regulations are seen as barriers to MIH-CP, some EMS agencies are finding ways to work within
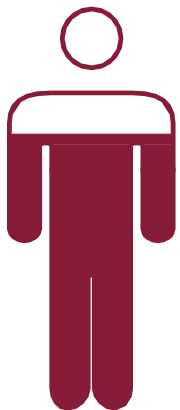
80%

Agree that their programs are legally compliant at the local, state and federal levels

57%
Agree that statutory or regulatory policies are a significant obstacle to sustaining or growing their MIH-CP program

23%
Disagree that statutory or regulatory barriers get in the way of their MIH-CP program

the law to launch programs.

- In California, state law says EMS must respond "at the scene of an emergency" and must transport patients to the hospital. But another statute permits pilot programs that use healthcare personnel in new roles to study improving patient outcomes and reducing costs. In mid 2015, about a dozen California EMS agencies are slated to launch community paramedicine pilots.

- When Maine's state EMS officials wanted to bring CP to the state, the Attorney General issued an opinion stating that the Maine EMS Board could not authorize community paramedicine because it is outside the scope of emergency response. The state legislature approved an amendment to the EMS statute authorizing 12, three-year CP pilots, which are currently underway.

- In Michigan, the state EMS office determined their state laws did not prohibit MIH-CP. After consulting with the state Bureau of Legal Affairs, the EMS office determined that EMS agencies could apply for approval of CP programs via a "special study," three-year pilots to test new healthcare strategies. So far, at least two programs have launched and six more are approved.

- On the other end of the spectrum is Texas, a delegated practice state, meaning there is no statewide scope of practice for EMS. Instead, medical directors determine what EMS can do – perhaps one reason why Texas is considered a national leader in MIH-CP.

"Regulations must be updated to support this kind of work."

– Survey respondent

What's in the law that makes it difficult for EMS to take on these new roles?

While EMS is often described as being at the crossroads of public safety, public health and medicine (and so, perfectly positioned to provide MIH-CP), it is more common that EMS is more narrowly defined in law or regulation as an emergency service.

When asked to describe what legal barriers were hindering their programs, the most commonly cited issues were regulations that confine practice to 911 emergency response. Several mentioned there is no legal ability to transport patients to destinations other than the emergency department.

Home health licensing laws were also mentioned by several respondents. In conducting scheduled, in-home visits, there is the potential for MIH-CP services to be interpreted as falling under home health regulations. In Colorado, some MIH-CP programs have sought home health licenses, while one respondent from Virginia noted that the state Office of the Attorney General issued an opinion that MIH-CP programs wanting to perform in-home services should seek home health licenses.

A few also mentioned the lack of clarity in the law, confusion over which regulatory body should have jurisdiction over EMS practitioners when acting outside of the 911 response capacity, difficulties working with city and state attorneys and hospital legal counsel, and questions about whether MIH-CP activities are within the paramedic/EMT scope of practice.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):

A National Survey

Limited Funding, Reimbursement for MIH-CP Makes
Long-term Outlook Cloudy

36%
Generates revenue

64%
No revenue
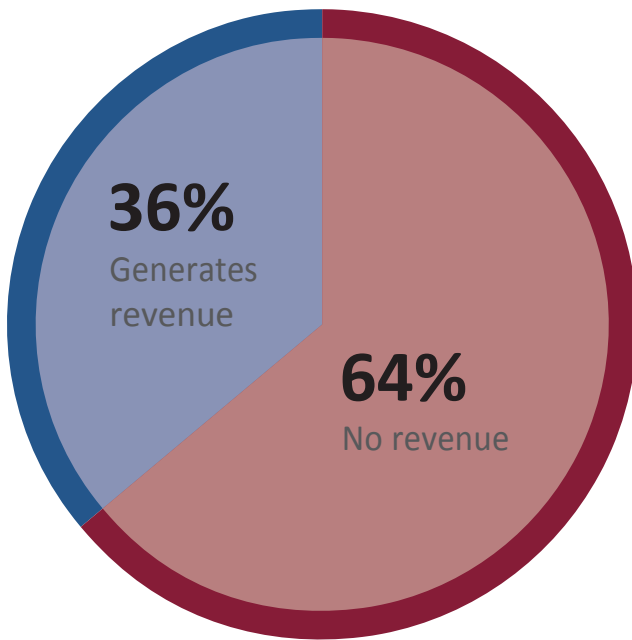
[**ARE MIH-CP PROGRAMS GENERATING REVENUE?**]

34%
Agree

41%
Neutral

20%
Disagree

4%
Don't know
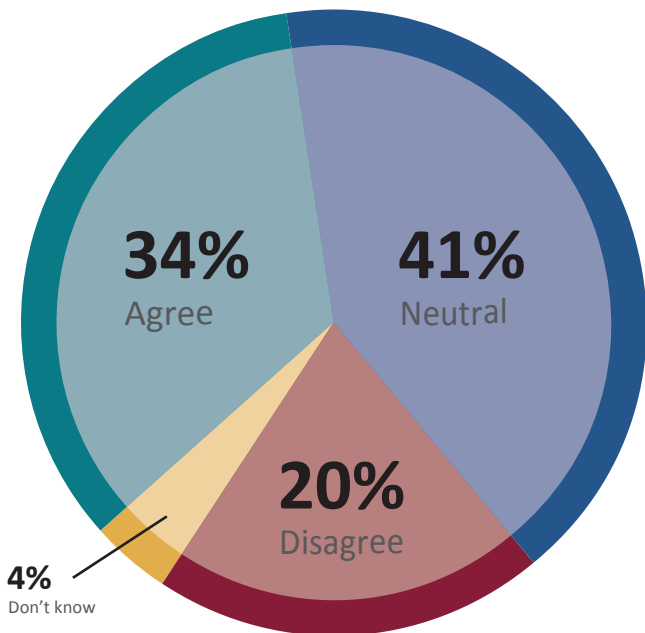
[**IS YOUR MIH-CP FINANCIALLY SUSTAINABLE?**]

Reimbursement for transport and mileage is the bread and butter of EMS agencies. While public organizations, such as fire departments, often receive substantial tax support to fund operations, even these organizations say they are increasingly reliant on billing Medicare, Medicaid and private insurance to keep up with the increasing volume of medical calls.

When it comes to MIH-CP, however, there is only one state in which community paramedicine is a billable service, and even there it's only for patients with Medicaid. [See Tri-County Health Care Case Study]. Unable to bill for services, the vast majority of EMS agencies operating MIH-CP programs say the lack of payments and reimbursements is an obstacle.

89% **Agree that reimbursement/funding is a significant obstacle**

Yet respondents were not entirely pessimistic about their financial prospects. When asked if they agree or disagree with the statement "Your program is financially sustainable," the most common answer was "neutral," perhaps indicating that many are simply unsure.

Few MIH-CP programs generate substantial revenue – Yet

While many agencies fund their programs out of their own operating budgets, some have secured contracts that provide payment for MIH-CP services. **Of the 99 respondents who answered the revenue questions, 36 – about one in three – report that their program generates revenue.** For the most part, the revenue is minimal.

Seven receive under $10,000 annually; four report earning between $10,001 and $25,000; and one generates between $25,001 and $50,000.

A few MIH-CP programs bring in considerably more. Four report earning between $50,000 and $100,000 annually; two bring in $100,000 to $150,000 annually; two receive payments of $300,000 to $500,000; and two generate $500,000 or more annually.

A Wake County (N.C.) EMS advanced practice paramedic conducts outreach.

Economic model for MIH-CP payments

When asked how the MIH-CP program receives payments, the most common answer was fee-for service (15 agencies, or 15 percent). Eleven agencies indicate they receive an enrollment

50%

of respondents believe their program will continue to grow as a source of revenue for their EMS agency

fee or fee-per-patient, 12 say they operate in a shared savings model with partner organizations, and two say they receive a fee for referral. Twenty-three respondents indicated they were receiving other sources of revenue, with grants most commonly cited.

Is the financial outlook more promising than these early revenue figures suggest?

In the overall cycle of testing new business models, it is very common for innovations to take years to generate enough revenue to be considered a financial success. This is especially true in healthcare, where EMS-based MIH-CP services are still in their infancy. It is also very typical for healthcare innovations to take years to generate enough outcome data to become recognized as a valuable service line for payers to invest in. Healthcare payment policy is not often considered nimble.

For most EMS agencies, CMS (Medicare and Medicaid) represents the lion's share of revenue derived from fee-for-service transports, and making major changes in CMS payment policy literally require an act of Congress. Compounding this issue, most commercial payers generally follow CMS guidelines for payment policy. Therefore, it is not surprising that the revenue rates are so low during this time of innovation incubation.

It should also be noted that there are other potential sources of revenue outside of direct payments for services, including taxpayer support. Agencies that rely on tax revenue for a portion of their budget may have their programs funded, in whole or in part, through tax dollars if the community values the MIH-CP services or sees MIH-CP services as an overall means of cost savings.

Yet these survey findings also underscore the urgent need to prove that value – to the community, to private insurers, to CMS and to other entities that may provide payments. For insurers or other external sources of payments, demonstrating value will likely include showing a reduction in expenditures coupled with effective patient outcomes and positive surveys of patient experience.

[ANNUAL OPERATING COSTS OF MIH-CP PROGRAMS]

2% $0	16% $1-$10,000	16% $10,001-$25,000	5% $25,001-$50,000	12% $50,001-$100,000	11% $100,001-$150,000	13% $150,001-$300,000	11% Over $300,000	13% Don't know

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP): A National Survey

IMAGE PROVIDED BY ACADIAN

Acadian Ambulance

Private ambulance company partners with Medicaid managed care organization to improve pediatric asthma care

Acadian Ambulance, which serves 30 counties in Texas, 33 Louisiana parishes and one Mississippi county, is one of the nation's largest private ambulance providers, answering half a million calls for service annually.

In 2013, inspired by the work being done by MedStar Mobile Healthcare in Ft. Worth, Texas, Acadian decided to launch an MIH-CP program. The Acadian team started where many EMS agencies begin – by analyzing EMS data for frequent 911 users who might benefit from better navigation and a more coordinated approach to care.

Gaining experience with frequent users

Their search identified about 15 people in the Lafayette, La. area who were calling 911 at least once a week. Paramedics arranged home visits with them. Many had complex medical and mental health issues that required individualized solutions, says

Richard Belle, Acadian's mobile healthcare and continuing education manager.

For one elderly woman, medics arranged mail-order prescriptions to prevent her from calling 911 every time she ran out of her medications. They reduced trip hazards in her home, and worked with United Way to have a rotted staircase replaced and a railing installed. Another patient was a paraplegic who suffered from frequent, painful urinary tract infections but could not get in to see a urologist quickly enough, so he went to the emergency department. Acadian's medical director got involved to get him an appointment. The man no longer calls 911 with regularity.

Of those initial 15 patients, all but one has significantly curtailed their use of 911 and the emergency department, Belle says. "There is a small population of people out there who are system abusers, and many of them have substance abuse problems," he says. "But most are using 911 because they don't have a primary care provider, they don't have transportation to get to a primary care provider or to get prescriptions filled, or they just don't

know how to get plugged into community resources that are available to them."

Expanding to diabetes, pediatric asthma care

Encouraged by their success, Acadian began outreach to potential partners. The first pilot to come out of that was with a private insurer, which contracted with Acadian to do home visits with diabetic patients to cut down on emergency department visits. During the four-month pilot, Acadian medics provided education on managing diabetes, and supplied glucometers and test strips to those who didn't have them. Though early results showed patients A1C levels had improved, the insurer ended the pilot without explanation, Belle says.

About a year ago, Louisiana Healthcare Connections, a Medicaid managed care organization, began working with Acadian on a pediatric asthma intervention. Acadian's Chief Medical Officer Dr. Chuck Burnell worked with Louisiana Healthcare Connections' clinical team to develop protocols.

"Last summer, we were looking for

NAEMT

– Lani Roussell, Quality Improvement Manager, Louisiana Healthcare Connections

a way to help our young members with asthma, which is particularly problematic due to environmental factors in our state. Asthma causes more hospitalizations than any other childhood disease and is the number one cause of school absences from a chronic illness," says Lani Roussell, Louisiana Healthcare Connections quality improvement manager. "Because of their reputation for quality service and technological innovation, we partnered with Acadian Ambulance on a pilot program to bring mobile healthcare to New Orleans area children with asthma. The mobile healthcare program identifies Louisiana Healthcare Connections members who have pediatric asthma and are at a high risk of emergency room utilization. Then over the course of four weeks, Acadian Ambulance's trained paramedics visit the member at home to conduct preventive screenings, perform an in-home risk assessment, and provide personalized health coaching on managing asthma."

Program set to expand further

Acadian has received referrals for 362 children. An unexpected challenge was that a high number (133) were unreachable; either the address and phone on record with the insurance company were incorrect, or the family didn't return calls, Belle says.

Thirty families refused to participate; 107 are considered "inactive" because the family expressed interest in participating and received one or more home visits but then became unresponsive. As of March 2015, 33 families had completed the program and graduated.

"After six months, we've seen better management of asthma for the children in this program. Their emergency room utilization has decreased and their medication compliance has improved,"

Roussell says. "Together, Louisiana Healthcare Connections and Acadian Ambulance are developing innovative ways to address pediatric asthma and making a lifelong difference in the health, education and happiness of Louisiana's children."

Today, 19 families are enrolled in the program; 14 have a first visit scheduled and 23 have expressed interest. Among participating families, the response has been overwhelmingly positive, Belle says.

Some of the "fixes" are relatively easy, such as explaining to one family that their asthmatic toddler should not sleep in a crib with two cats. Others are more difficult. Some families live in substandard housing with mold and pest infestations. "We do very little clinical care. Most of what we do is education and navigation of patients, getting them to understand that when their child starts to feel bad,

they need to contact the child's physician. Don't wait and then go to the emergency department," Belle says.

Moving toward financial viability

Acadian medics receive a fee per visit from the managed care organization. But it still costs Acadian more to administer the program than it recoups, Belle says. With the program slated to run until the end of 2015, next steps will be re-negotiating their fee with the managed care organization, adding more patient groups, and sharing their positive results with other potential partners.

"This program will be revenue generating for Acadian in the coming months," Belle says. "We are going to take these results to other hospital systems, and public and private payers as a proof of concept, and show them how much money they can save by doing this."

Acadian's tips for success

1. **Frequent user programs** are a good place for EMS agencies to start developing an MIH-CP program. The agency can use internal data, and can use any successes to demonstrate effectiveness to potential partners.

2. **Tap into your local community health worker network.** Community health workers, who may be volunteer or paid workers, typically have little medical training, but instead conduct outreach, provide social support, do informal health behavior counseling and provide basic health education or screenings to members of the community. In Louisiana, the community health workers network shared valuable information about community resources such as social services, non-profits and charitable organizations. Acadian mobile healthcare paramedics also attend community health worker monthly meetings.

3. **Understand that every patient group has different needs.** The children in the Medicaid pediatric asthma group, for example, had a pediatrician. So one goal was to get the family to rely on the primary care provider instead of the emergency department. In a frequent user group, however, many patients are likely to lack primary care access, posing a different challenge for the mobile healthcare team.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):
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Measuring Outcomes and Patient Satisfaction to Show Value

With healthcare entities increasingly expected to show that treatments and interventions are worth the price, developing systems of collecting and analyzing data is a high priority across the healthcare spectrum.

Traditionally, EMS hasn't been expected to collect or report performance data, with the exception of response times and resource deployment. But it's only a matter of time before major payers such as CMS and private insurers will expect EMS to transition, along with the rest of healthcare, away from strictly fee-for-service reimbursement and toward reimbursement that takes into account costs and outcomes – in other words, value.

90%
of respondents say their MIH-CP program collects data

In the MIH-CP context, collecting and reporting data internally and to healthcare stakeholders is beneficial for two major reasons. First, data can prove to the EMS agency and partners that the program is having the desired impact. Second, if the program is not achieving the desired outcome, the data serves as the foundation for developing, testing and comparing alternate models and strategies.

Consistent with the importance of partnerships and collaboration in MIH-CP, 65 percent of respondents indicate that they share data with their MIH-CP partners. Fewer but still sizable numbers

64%
collect pre-MIH-CP enrollment healthcare utilization, while 56% collect post-enrollment usage too
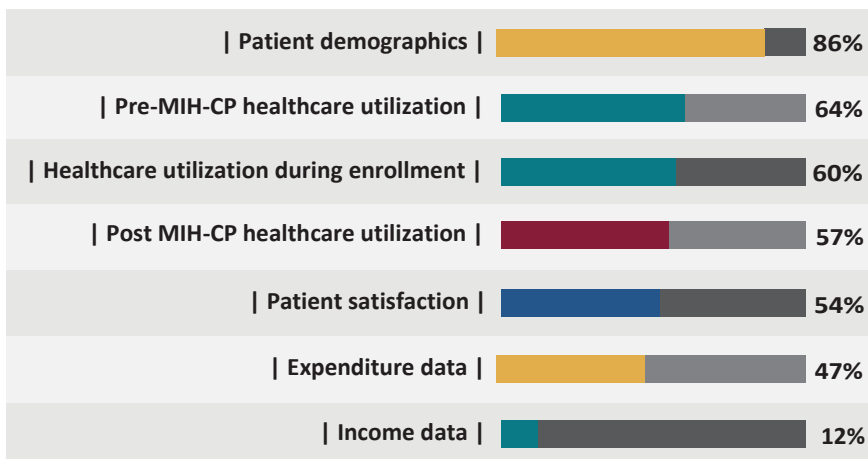
share with other entities, including local government or other local stakeholders (36 percent), their state Medicare/Medicaid office (21 percent), state public health department (20 percent), insurance companies (15 percent) and CMS (12 percent). Only 7 percent say they don't share data.

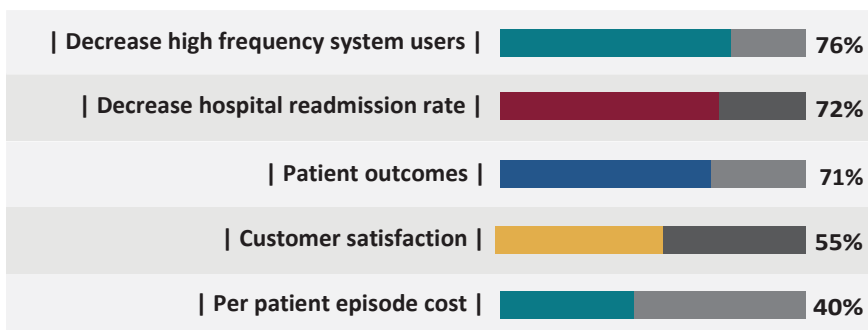### MIH-CP must grapple with what to measure and how to measure it

That so many respondents indicate they collect and analyze data for both MIH-CP program development and outcome measurement is very encouraging. This means that the basic infrastructure and commitment to tracking and reporting data is in place, a key step in demonstrating the value proposition that payers may want to see as a condition of widespread payments or reimbursement for MIH-CP services.

But determining the most important data to collect, the most feasible way to collect it and how to share it brings up complex questions that all of healthcare is grappling with – MIH-CP included.

[DATA COLLECTED BY MIH-CP PROGRAMS]

| Patient demographics |	86%
| Pre-MIH-CP healthcare utilization |	64%
| Healthcare utilization during enrollment |	60%
| Post MIH-CP healthcare utilization |	57%
| Patient satisfaction |	54%
| Expenditure data |	47%
| Income data |	12%

[OUTCOMES MEASURED BY MIH-CP PROGRAMS]

| Decrease high frequency system users |	76%
| Decrease hospital readmission rate |	72%
| Patient outcomes |	71%
| Customer satisfaction |	55%
| Per patient episode cost |	40%

NAEMT

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Community paramedics from North Memorial Ambulance Services in Robbinsdale, Minn. seek to prevent 911 calls.
IMAGE PROVIDED BY DAVID JOLES/MINNEAPOLIS STAR TRIBUNE

In this survey, only one agency reports collecting and reporting patient health status as a core measure. Though the specifics of data collection may vary from agency to agency, the patient's assessment of their health status upon enrollment and at graduation is a key measure that should be used by all EMS agencies conducting MIH-CP programs.

In addition to challenges in determining which outcomes to measure, there are also technological obstacles, including the dismaying inability of many electronic patient care reporting (EPCR) systems used by EMS to fully integrate with the data systems of hospitals and other partners, and vice versa. Another issue is that many EPCR systems used by EMS are not designed to collect longitudinal data. The incompatibility of various data systems and barriers to health information exchange is hardly exclusive to EMS or MIH-CP, but is an area that needs attention to make possible the bi-directional flow of information between the multi-disciplinary teams involved in MIH-CP.

EMS agencies describe strong early successes in reducing reliance on 911 and emergency departments

With the majority of programs in operation for a year or less, it's not surprising that one in four respondents say that it's too soon to tell how much success they are having in key areas such as reducing costs, reliance on 911, the emergency department and 30-day readmissions. Yet a sizable percentage say they are seeing success in a variety of areas.

54% Rate their program as highly or somewhat successful in showing cost savings for a defined group of patients

60% Rate their program as highly or somewhat successful in reducing 911 utilization among specific patient groups

59% Rate their program as highly or somewhat successful in reducing reliance on the emergency department for a defined group of patients

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81%
of programs in operation for two years or longer report success in reducing costs, 911 use and emergency department visits for defined groups of patients

46% Rate their program as highly or somewhat successful in reducing 30-day readmissions for specific patient groups
62% Rate their program as highly or

somewhat successful in achieving patient satisfaction

With which groups of patients do MIH-CP programs report success?

MIH-CP programs are most likely to report success with frequent 911 users – 54 percent say they are highly or somewhat successful in improving outcomes for this group while 51 percent say they are highly or somewhat successful in reducing per patient healthcare costs.

One patient group that seems to be particularly challenging for MIH-CP programs is patients referred because of substance abuse or alcoholism. About 26 percent of MIH-CP programs report improving outcomes for this group, while 18 percent report lowered healthcare costs.

[MIH-CP Programs Report Improved Outcomes for Various Patient Groups.]

	Improved Outcomes	Too Soon To Tell	Not Applicable
Frequent 911 users	54%	0	16%
COPD, asthma, diabetes	54%	25%	17%
Congestive heart failure	37%	25%	30%
Substance abuse/alcoholism	26%	20%	35%
Hospice/terminal illness	26%	19%	44%

[MIH-CP Programs Report Lowered Costs for Various Patient Groups.]

	Lowered Costs	Too Soon To Tell	Not Applicable
Frequent 911 users	51%	29%	14%
COPD, asthma, diabetes	42%	33%	21%
Congestive heart failure	33%	33%	28%
Substance abuse/alcoholism	18%	31%	32%
Hospice/terminal illness	18%	29%	41%

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP): A National Survey

Colorado Springs Fire Department

Partnering with hospitals, Medicaid care coordination organization to reduce 911 calls

With medical 911 calls increasing by about 8 percent annually and data showing that about 50 percent of 911 responses are for non-urgent situations, Colorado Springs Fire Department, which answers 60,000 calls annually, wanted to find ways to redirect some of those callers to resources other than the emergency department.

As a first step, in 2012, the fire department, in partnership with University of Colorado Health-Memorial Hospital and Centura Health System's Penrose-St. Francis Hospital, set out to study the reasons underlying the overuse of 911 and emergency departments. Teams made up of a physician and an EMT or paramedic went into the homes of frequent 911 users to assess the patient and their home environment. The hospitals covered the cost of the physician time, while a Kaiser Permanente grant covered data analysis.

"We told them to look, listen and connect," says Jefferson Martin, Colorado Springs Fire Department's community and public health administrator. "We quickly came to the determination that there was nothing acute medically that we needed to do during those visits." Instead, patients needed education about managing chronic diseases, lacked transportation to pharmacies or doctor's offices, or were in need of resources to assist with psychosocial or economic issues. "The easy button was 911. That system couldn't turn them away," he says.

Three months into their investigation, they determined that a physician wasn't needed for the assessments. Instead, they sent an EMT or paramedic with a nurse or nurse practitioner, and eventually, only EMTs and paramedics.

Three in four have mental health issues

Over a one-year period, the teams visited 200 homes. Their analysis showed that three in four (77 percent) patients had mental health issues, often with other chronic medical conditions.

Calling their program CARES (Community Assistance Referral and Education Services), a name coined by Battalion Chief Mitch Snyder of Kent Fire Department in Washington, they launched a program in which EMTs and paramedics would continue the home visits, providing assistance with education and navigating patients to mental health or other community resources.

"This is about delivering the right care, at the right time, in the right place," says Dr. Robin Johnson, an emergency physician at Memorial Hospital who has since become a deputy medical director for CARES. "It is never about saying no to care, but about redirecting to the best healthcare for the patient."

With funding from Penrose-St. Francis Hospital, the fire department hired a licensed clinical social worker/behavioral health specialist to provide guidance and case management. The fire department also shifted the responsibilities of a nurse practitioner, already on staff as the fire department's quality assurance officer, to assist.

"In EMS, we are fixers," Martin says. "We don't think in terms of long-term behavioral modification, so it's great to have an expert to come in and help us. One thing we've been taught by the behavioral health specialist is that we don't want to enable or reward negative behaviors, so we are not supposed to do everything for patients. Instead, we set health goals that include steps they can take, and steps we can do for them. Our patients may have 10 issues that are contributing to the way they are accessing the system, but we try not to overwhelm

IMAGE PROVIDED BY COLORADO SPRINGS FD

them. We have to prioritize."

Patients are seen at home up to five times. They are also given the phone number for a mental health crisis line that's answered 24-7, and a number for non-urgent problems, which goes directly to voice mail. There's a reason behind not having a live person answering those calls, Martin says. "Our behavioral health clinician has said we need to teach them how to plan ahead. The lesson is, 'We will still help you, but not in 8 minutes or less'," he says.

In 2013, the CARES program saw 200 patients. In 2014, they upped that to 500 patients – and are seeing results. Among two-thirds of patients, 911 use dropped by 50 percent.

agree to work together to improve care coordination for Medicaid patients. The RCCO pays the fire department $1,000 per patient for a 90-day intervention, with a total of $100,000 budgeted, and also covers the cost of a pharmacist to assist with medication reconciliation.

A pilot involving 13 patients found a 75 percent decrease in hospital readmissions during the three months post-intervention, an estimated cost savings of $145,000 in Medicaid claims, says Kelley Vivian, the RCCO's community strategies director.

"The CARES program is a wonderful way to interact with our clients that we refer to as super-utilizers – the well-known faces in the 911 system, the emergency department

with a nurse practitioner who respond to low-acuity (Alpha or Bravo) calls, and a Community Response Team, which includes a paramedic, behavioral health clinician and law enforcement officer who respond to 911 calls that are psychiatric in nature.

The state Office of Behavioral Health provided funding, while the medical directors of the fire department, emergency department and a psychiatric facility worked together to develop protocols that enable the team to do the exam, blood draws and toxicology screening necessary to medically clear patients in the field, without needing transport to an emergency department. Launched Dec. 1, 2014, the first call came in 8 minutes later, Martin says.

Other additions to the program include one full-time and three part-time nurse navigators, whose salaries are paid for through a combination of the fire department budget; grants from Aspen Point, a behavioral health organization, and Kaiser Permanente.

With so many healthcare and community entities seeing value in the CARES program, the RCCO, Vivian says, is considering increased funding for CARES next year.

"We think there are more clients who can be served. Firefighters are trusted, thorough and they do a good job of explaining what is going on in the home back into the system of care," Vivian says. "We think this is a really great way of bringing hospitals, emergency services, a payer source and others together to address community needs, and that there will be payers in addition to Medicaid that will be interested in this."

> **"We think this is a really great way of bringing hospitals, emergency services, a payer source and others together to address community needs, and that there will be payers in addition to Medicaid that will be interested in this."**
>
> – Kelley Vivian, Community Strategies Director,
> Colorado Medicaid Regional Care Collaborative Organization

The other third have been harder to reach, he says. "These patients are incredibly complex. For them it's not about access to primary care, or education, or transport. Those are issues we can solve," he says. "The patients we've been less successful in moving the needle on are those with medical, behavioral, mental health and substance abuse issues." As a last resort, the CARES team will enlist the help of the legal system, including law enforcement and the court system, to compel a psychiatric evaluation or commitment.

Medicaid Regional Care Collaborative gets involved

Seeking a strategy to reduce costs among frequent emergency department users, the next organization to get involved with the CARES program was the Colorado Medicaid Regional Care Collaborative Organization, or RCCO, a non-profit made up of multiple area healthcare entities that

and even in their doctor's office," Vivian says. "These are patients that need that extra level of interaction, to help them become more proactive in their health and so they can take better care of their health."

Program expands to include other teams

The next step for the fire department was expanding the program to include two additional units – a mobile urgent care unit, which includes a paramedic or EMT paired

Colorado Springs Fire Department's tips for success

① **Conduct a thorough community needs assessment**, for your own information and to present to partners. "Anecdotes are not enough," Martin says.

② **Collaborate and seek guidance from pharmacists**, licensed clinical social workers/behavior specialists and other healthcare specialties.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):
A National Survey

Lessons Learned - Tips from the experts

One of the most revealing questions in the survey relates to lessons learned and advice respondents offered to other EMS agencies seeking to launch MIH-CP programs. The answers of the 86 respondents who offered their input can be summarized in seven themes.

1 Collaborate, don't compete. MIH-CP programs work in partnership with other healthcare stakeholders to fill gaps in healthcare delivery, not replace services already available within the community. The most oft-cited recommendation was to involve stakeholders early in the planning process.

"Early identification of stakeholders is essential ... make sure they are at the table from the beginning." – Survey respondent

"Develop a community stakeholders list and begin to have regular informative meetings." – Survey respondent

The purpose of early stakeholder consultation is to inform potential partners about MIH-CP, to share agency plans, to ensure the regulatory environment is understood at the outset, to allay fears of competition and to secure buy-in, according to respondents.

"Help stakeholders see that EMS is committed to better outcomes of population health and better stewardship of healthcare dollars." – Survey respondent

"Rather than view EMS as merely the 'ambulance drivers' that deluge a hospital, EMS should be seen as the critical link that is driving the dissolution of barriers to coordinated care." – Survey respondent

2 Do a community needs/gap analysis. Prior to launch, learn the resources that are available within the community, determine where there are gaps and find out if your EMS agency can have a role in filling those gaps.

"As every community is different, the most important component of program development is focusing on the specific needs of the population served and designing a program around them." – Survey respondent

"Although various programs may have common principles, the key to success is creating one that's right for your community's needs." – Survey respondent

3 Start small and build on success. Another common piece of advice was to start with a limited number of patients and build upon experience. Several also urged EMS agencies to avoid trying to address all needs simultaneously. They also encouraged patience and perseverance, saying that getting programs up and running always seems to take longer than planned.

4 Focus on the patient. Several respondents reminded EMS agencies to above all, keep the patient at the center of the program design.

"Always view this type of initiative in light of what is best for the patient, your community and then your organization. The incentives to begin these programs shouldn't be money as a primary factor. Collaborate, innovate, execute, retool, re-execute." – Survey respondent

5 Integrate. Integration with the existing healthcare system includes the gap and resource analysis highlighted above, as well as other integrations in health information technology, referral processes and patient navigation to the most appropriate care.

"We work closely with patient navigation to address non-medical, access, insurance, behavioral health and social needs." – Survey respondent

"Develop the network of resources you will need for the patients enrolled in the program." – Survey respondent

6 Collect Data. Another common theme was encouraging MIH-CP programs to collect data relevant to measuring patient outcomes, patient experience and impact on patient costs. Some emphasized the need to integrate with local, regional or state electronic health information exchanges (HIE).

"Join or create local HIE and share your data and interpret its significance for your patients, your system and primary healthcare and services providers." – Survey respondent

7 Learn from other MIH-CP programs. Multiple respondents also recommended consulting with established MIH-CP programs.

"Do not reinvent the wheel. There are a lot of resources available to study and emulate. Replicate best practices and learn from the agencies that have been running programs to help avoid potholes." – Survey respondent

Conclusion: What Will It Take for MIH-CP to Become a Success?

The growing movement to compel more efficient healthcare spending and the widely acknowledged need for integration and collaboration to solve complex patient issues represents an enormous opportunity for EMS to cement its future in a changing healthcare world.

This survey shows that through MIH-CP, many agencies are proactively redefining the role of EMS, from one associated mainly with emergency response to one involved with prevention, patient education and effective navigation. This is no small feat, given obstacles such as opposition from other healthcare entities; confusing and sometimes prohibitive legislative or regulatory barriers; and limited reimbursement.

Those obstacles are perhaps one reason why, out of an estimated 17,000 EMS agencies nationwide, only 100 or so have launched MIH-CP programs. And many of those agencies, despite their enthusiasm and strong belief that they are doing what's right for their communities and their patients, admit their long-term sustainability is by no means guaranteed.

How to define success?

Defining "success" for a healthcare program such as MIH-CP can be considered from multiple angles. For individual patients or groups of patients, success is defined by impact and costs, and measuring it is dependent on collecting and analyzing the sort of clinical and outcomes data discussed earlier in this summary analysis.

Success can also be considered from the EMS agency perspective, and could include

factors such as whether an MIH-CP program is revenue generating or self-sustaining; how the program impacts the EMS agency's relationships and reputation within the community; whether MIH-CP provides opportunities for professional growth for the EMS workforce; and the extent to which MIH-CP enables the agency to achieve its mission of serving its community.

A third way to look at success is at the macro level – that is, to what extent can MIH-CP impact patient outcomes and achieve sustainability on a large scale, nationwide? Although answering that question is premature, what can be discussed are the key factors that will contribute to the ability of MIH-CP programs to become firmly established as cost-effective, value-added healthcare service providers in the months and years to come.

Three key factors

1 **State level statutory and regulatory change** – Today, many state laws and regulations expressly limit EMS agencies to emergency or 911 response and limit their activities to providing medical care only at the scene of an emergency.

Through MIH-CP, many agencies are proactively redefining the role of EMS, from one associated mainly with emergency response to one involved with prevention, patient education and effective navigation.

Mobile Integrated Healthcare and Community Paramedicine (MIH-CP):
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Conclusion: What Will It Take for MIH-CP to Become a Success?

MIH-CP should be included in healthcare policy change and reimbursement reform that transition EMS into a value-based health services provider that is adequately funded to continue its vital role in safeguarding the health and well-being of our nation's population.

IMAGE PROVIDED BY MEDSTAR MOBILE HEALTHCARE

In practice, EMS practitioners know many 911 calls are not life threatening, and instead are patients who could be better served by less expensive resources, such as primary or urgent care. Moreover, the narrow view of EMS as emergency-only represents an outdated, siloed view of the provision of patient care that is rapidly falling by the wayside elsewhere in the healthcare system. The findings of this survey, along with the case studies, suggest that the narrow view of EMS is beginning to change among other healthcare providers as well.

2 **Data proving value** – The most powerful case for convincing payers or healthcare partners to invest in MIH-CP programs is to provide proof that the programs achieve the Triple Aim of improved patient experience of care, improved population health and reduced per capita cost of care.

Some MIH-CP programs have already secured contracts with hospitals, home health, hospice, nursing homes, Medicaid care coordination and managed care organizations, and even a state department of behavioral health. But to turn that trickle into a flood, EMS agencies need to engage in collecting, analyzing and reporting data.

In a positive sign, many MIH-CP programs say they collect data and are showing positive results. Yet there are almost no peer-viewed, published studies on MIH-CP outcomes. In addition, the EMS profession is still working toward a consensus on the best method for demonstrating value, including determining what to collect, how to report it and to whom.

3 **Reimbursement reform** – Today, EMS is paid via a transportation-based, fee-for-service model, specifically for delivering patients to an emergency department. "This provides a disincentive for EMS agencies to work to reduce avoidable visits to emergency departments, limits the role of prehospital care in the US health system, is not responsive to patients' needs, and general downstream healthcare costs," wrote Dr. Kevin Munjal in a Feb. 20, 2013 *JAMA* editorial. "Financial and delivery model reforms that address EMS payment policy may allow out-of-hospital care systems to deliver higher-quality, patient-centered, coordinated healthcare that could improve the public health and lower costs."

Hospitals, physicians, and other medical providers are increasingly subject to value-based reimbursement, including receiving penalties for unnecessary hospital readmissions. Thus far, EMS hasn't had its reimbursement tied to performance or outcomes measures, but it's only a matter of time before CMS and private insurers will expect EMS to fall in line with the rest of healthcare.

Individual EMS agency contracts with hospitals and other healthcare partners will continue to be an important source of revenue to support MIH-CP programs. But MIH-CP should also be included in healthcare policy change and reimbursement reform that transition EMS into a value-based health services provider that is adequately funded to continue its vital role in safeguarding the health and well-being of our nation's population.

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MedStar MIH Healthcare Expenditure Savings Analysis:

	Ambulance Transports			ED Visits			Hospital Admissions		
	Avoided	Expenditure	Savings	Avoided	Expenditure	Savings	Avoided	Expenditure	Savings
9-1-1 Nurse Triage	3834	$ 419	$ 1,606,446	2919	$ 969	$ 2,828,511			
High Utilizer Program	5116	$ 419	$ 2,143,604	2961	$ 969	$ 2,869,209	1072	$ 10,500	$ 11,256,000
Readmission Prevention	81	$ 419	$ 33,939	78	$ 969	$ 75,582	179	$ 10,500	$ 1,879,500
Sub-Total			**$ 3,783,989**			**$ 5,773,302**			**13,135,500**

Total Expenditure Savings **$ 22,692,791**

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State of Minnesota

HOUSE OF REPRESENTATIVES

EIGHTY-SEVENTH SESSION   H. F. No. **2060**

02/01/2012   Authored by Mack, Zellers, Quam, Huntley, Gottwalt and others
                  The bill was read for the first time and referred to the Committee on Health and Human Services Reform
03/21/2012 Adoption of Report: Pass as Amended and re-referred to the Committee on Health and Human Services Finance
03/29/2012   Adoption of Report: Pass and re-referred to the Committee on Ways and Means

1.1   A bill for an   act

1.2   relating to human services; providing medical assistance coverage for community

1.3   paramedic services; amending Minnesota Statutes 2010, section 256B.0625, by

1.4   adding a subdivision.

1.5   BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.6   Section 1. Minnesota Statutes 2010, section 256B.0625, is amended by adding a

1.7   subdivision to read:

1.8   Subd. 60. **Community paramedic services.** (a) Medical assistance covers services

1.9   provided by community paramedics who are certified under section 144E.28, subdivision

1.10   9, when the services are provided in accordance with this subdivision to an eligible

1.11   recipient as defined in paragraph (b).

1.12   (b) For purposes of this subdivision, an "eligible recipient" is defined as an individual

1.13   who has received hospital emergency department services three or more times in a period

1.14   of four consecutive months in the past 12 months or an individual who has been identified

1.15   by the individual's primary health care provider for whom community paramedic services

1.16   identified in paragraph (c) would likely prevent admission to or would allow discharge

1.17   from a nursing facility, or would likely prevent readmission to a hospital or nursing facility.

1.18   (c) Payment for services provided by a community paramedic under this subdivision

1.19   must be a part of a care plan ordered by a primary health care provider in consultation with

1.20   the medical director of an ambulance service and must be billed by an eligible provider

1.21   enrolled in medical assistance that employs or contracts with the community paramedic.

1.22   The care plan must ensure that the services provided by a community paramedic are

1.23   coordinated with other community health providers and local public health agencies and

1.24   that community paramedic services do not duplicate services already provided to the

2.1   patient, including home health and waiver services. Community paramedic services

2.2   shall include health assessment, chronic disease monitoring and education, medication

2.3   compliance, immunizations and vaccinations, laboratory specimen collection, hospital

2.4   discharge follow-up care, and minor medical procedures approved by the ambulance

2.5   medical director.

2.6   (d) Services provided by a community paramedic to an eligible recipient who is

2.7   also receiving care coordination services must be in consultation with the providers of

2.8   the recipient's care coordination services.

2.9   (e) The commissioner shall seek the necessary federal approval to implement this

2.10   subdivision.

2.11   **EFFECTIVE DATE.** This section is effective July 1, 2012, or upon federal

2.12   approval, whichever is later.