

Doing It Right

Scope of practice, training & tips for conducting effective mobile integrated healthcare programs

An editorial supplement to JEMS, sponsored by Laerdal





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JEMS and Laerdal are excited to bring you this special supplement, "Doing It Right: Scope of practice, training & tips for conducting effective mobile integrated healthcare programs."



Each of the contributors to this supplement are recognized leaders in the EMS mobile integrated healthcare and community paramedicine (MIH-CP) field. They've all guided the implementation and ongoing success of this service delivery model and are therefore uniquely qualified as experts in the focus area.

This supplement highlights:

- Scope of services provided by EMS providers delivering the service model;
- Educational needs for both initial credentialing and continuing education of community paramedics and other specially trained providers;
- Benefits of integrating EMS-based MIH-CP services with home health and hospice agencies; and
- The most important things an agency must consider while developing and implementing an MIH-CP program.

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Expanding Scope

Marrying community paramedicine with existing EMS scope of practice

By Dan Manz & Kevin McGinnis

The commonly accepted role of EMS, in public health speak, is secondary prevention: to mitigate the impact of an injury or medical emergency once it has occurred by immediate and appropriate emergency intervention.

The repurposed role envisioned by the 1996 *EMS Agenda for the Future* expands to include primary prevention, which is preventing the injury or medical emergency from occurring in the first place, and tertiary prevention, which is preventing reoccurrence of injuries and medical emergencies through rehabilitative management of the underlying disease or other issues that may have caused them.¹

Community paramedicine (CP) has evolved as the embodiment of these expanded roles for EMS providers. Leaders of the CP movement in the United States maintain that CP represents additional roles and practice settings for EMS providers without requiring scopes of practice expanded beyond current state EMS licensure.

A soon-to-be-published National Association of State EMS Officials (NASEMSO) survey Collecting and testing blood samples is within the scope of a paramedic, according to the NHTSA.

PHOTO WAYNE ZYGOWICZ

of state EMS offices finds that only three of 49 respondents (6%) allowed CP scope beyond current scope of practice. One example is a state that allows suturing by community paramedics with appropriate supplemental training.

Scope of Practice Considerations

In its ongoing support for implementation of the EMS agenda, the National Highway Traffic Safety Administration (NHTSA) sponsored the development of *The EMS Education Agenda for the Future: A systems approach* in 2000. The education agenda envisioned a new model for delivering and updating education for EMS personnel one that more closely paralleled other allied health disciplines. It also sought to answer some fundamental questions about EMS: Where does EMS fall in the spectrum of other healthcare professions like nursing or respiratory therapy? How many levels of EMS do we need and what should the scope of practice be for each level?





How can we assure the competency of people entering and working in EMS?

As one step toward implementing the education agenda, an effort was undertaken to establish the National EMS Scope of Practice Model (SOP model), which was published in 2007. This initiative was also supported by NHTSA and the federal Health Resources and Services Administration. It was led by NASEMSO with participation by educators, employer groups, physicians, the National Registry of EMTs, the Committee on Accreditation of Educational Programs for the EMS Professions, and private citizens. Establishing the SOP model was crucial for EMS as it reversed the orientation from education driving practice to first defining practice and then building the education necessary to prepare EMTs and paramedics to function.

The SOP model was built on several foundational elements. As its name implies, it is just that: a model. States bear the responsibility for licensing EMS personnel who deliver services within the state. States also have the responsibility for establishing the scope of practice associated with that license. The SOP model is intended to be a floor, not a ceiling, supporting the mobility of the EMS workforce between states by clarifying that an EMT or paramedic knows at least this much and can do at least this much.

The SOP model states that "the primary focus of the EMT is to provide basic emergency medical treatment and transportation for critical and emergent patients who access the emergency medical system," and that "the Paramedic is an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients who access the emergency medical system." In describing the settings where EMTs and paramedics work, the SOP model suggests both may work at emergency scenes and during transportation, "or in other healthcare settings."²

As EMTs and paramedics take on new and different roles in providing community healthcare, EMS systems need to keep asking whether something outside their scope of practice is really just a new place or role where they're applying education they already have.

Education Standards

The *National EMS Education Standards* were created to help EMS educators prepare candidates for the EMS profession at the four levels in the SOP model (EMR, EMT, advanced EMT and paramedic). This document describes "depth" of knowledge, which relates to the amount of detail a student knows about a topic. It also discusses "breadth" of knowledge, which refers to the number of subjects a student needs to learn in a particular competency. In ascending levels from EMR to paramedic, each of the levels contains the full depth and breadth of information in the lower level(s) while adding to each category.³

The scope of practice, particularly for paramedics, is far broader than many people realize. For example, the SOP model describes psychomotor skills including: inserting an intraosseous cannula, enteral and parenteral administration of approved prescription medications, accessing indwelling catheters and implanted central IV ports for fluid and medication administration, collecting and testing blood samples, administering medications by IV infusion, and maintaining an infusion of blood or blood products.²

Pharmacology is another example. The education standards describes paramedic competence as "complex depth and comprehensive breadth for names, actions, indications, contraindications, complications, routes, side effects, interactions, (and) dosages."³ Neither the education nor scope document includes a list of authorized medications a paramedic can administer. This was purposeful so that the documents don't become outdated as clinical practice changes and advances are made in pharmacological treatments.

Gray Areas

As interesting for CP as what the SOP model and education standard includes is what they don't mention. Is it a scope issue for EMS to visit the home of a patient and provide education on fall prevention? Could EMS compare a prescription medication list provided by a patient's physician with the medications found in the home to determine if the patient has had their prescriptions filled and is taking them as intended by the physician? As an assessment technique, could an EMS person weigh a patient at their home to monitor potential weight gain related to fluid retention? Some of the tasks that EMS may be well-positioned to take on in a CP realm are things a non-clinical support person could do.

Although EMTs and paramedics use their education, skills, protocols, standing orders and direct medical oversight to establish "care plans" for their patients, these plans for the next minutes of emergency care are very different from comprehensive care plans for managing chronic conditions encountered by community paramedics. As a result, some say community paramedics provide "episodic" assessment, care, intervention and care recommendations based on care plans developed by nurse case/care managers, mid-level practitioners, or physicians with whom they're clinically integrated. They maintain that responsibility for establishing the care plans themselves is outside the community paramedic's scope.

Medication reconciliation, as opposed to simply reviewing medications as discussed above, is another area of uncertainty. Paramedics are within their scope to understand the indications, contraindications, mechanisms, interactions and precautions for the administration of a wide range of medications and to use reference materials to access related information they may not know. The CP role may have them helping a recently discharged hospital patient reestablish themselves at home. As a part of this, a "medication reconciliation" may be done to make sure that medications brought home don't cause problems with medications found at home. Some systems have the community paramedic simply listing or taking pictures of all meds for review by a physician or pharmacologist, while others may require more assessment responsibility on the community paramedic's part. What is the scope limit here, if any?

Conclusion

Community paramedicine was conceptually based on using EMS resources to address unmet health service and access needs in a given community. By definition, then, CP in one community may look very different from CP in another community. As CP matures, however, it's incumbent upon its leaders to encourage standardization of practices and their scope, and the education, medical oversight and other system components required to carry out those practices. There have been productive efforts to create such standardization through the development of a national consensus curriculum for community paramedics. It's perhaps time, though, to turn to the scope and education documents and processes for the purpose of further development in the CP realm. 🕇

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Preparing Your Team

Core competencies for community paramedics

By Dan Swayze, DrPH, MBA, MEMS oday's community paramedics are pioneers, navigating through largely uncharted waters. One of the most frequent questions I get from agencies interested in developing an MIH-CP program is, "What do you teach your community paramedics?" Essentially they're asking, "What should we do when we finally see a patient?" After more than

a decade of community paramedic visits and with hundreds of agencies running similar programs, we have a better idea today than we've ever had before.

Expanded Patient Assessment

In EMS we teach students to focus on the patient's physiological status. We take vital signs, ask our SAMPLE (symptoms, allergies, medications, past medical history, last oral intake, events leading to present illness/injury) history questions and then choose the appropriate intervention. A community paramedic assessment is much broader. While we're interested in the patient's medical history, we need more than a list. We need to know what the patient knows about their diseases. We need to know more than just what medications they're taking, but also whether they're being taken as prescribed. We ask questions about their mental health history, a very common comorbidity that makes managing a chronic disease much more challenging.

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Community paramedics then significantly diverge from their traditional EMS assessments as they ask about other barriers and resources for healthcare. We ask the patient about their social support systems, their environment, their income and any transportation issues. We ask whether they're currently working with other communitybased organizations. In short, we look for issues affecting their healthcare beyond what's happening physiologically. We then ask something else we rarely ask in traditional EMS work: "What would you like us to help with first?"

Therapeutic Communications

That question reflects a fundamental difference between MIH-CP and traditional EMS work. In

our traditional roles, we are problem solvers. We assess the patient and use our knowledge to stabilize, if not resolve, the patient's illness or injury. However, in MIH-CP, the patient is the only one who can solve their problems. If we focus on an issue that's of no importance to the patient, regardless of the potential consequences, the patient will likely not do what's necessary to change.

This shift in roles requires us to rethink how we talk to patients. Fortunately, there's an evidencebased style of patient interaction known as motivational interviewing (MI) to help us support the patient in our new role. In MIH-CP, MI helps providers actively listen to the patient and to avoid reflexive actions like giving advice or assuming the

Case Study: Christian Hospital EMS Community Health Access Program

By Shannon Watson, NREMT-P

The Christian Hospital EMS MIH-CP program is called the Community Health Access Program (CHAP) and targets community healthcare needs. At the forefront of CHAP are specialty-trained paramedics. These advanced practice paramedics (APPs) work closely with the department medical director and other physicians to ensure the right patient resource is given at the right time.

CHAP focuses on a number of community healthcare needs, including:

Navigation through the healthcare system: APPs perform full medical screenings on all patients to determine if a life threat or potential life threat exists. If there's an emergency, the patient will be transported to the hospital by ambulance. If the APP determines no emergency condition exists, the patient will be navigated three ways: home treatment, an appointment with a primary care physician, or direction to a community resource such as one of two health resource centers where patients are assessed from a holistic standpoint—medical status, nutritional needs, competencies on literacy, as well as socialization in their communities.

Hospital readmission reduction: APPs make weekly home visits on potential high-risk readmissions (e.g., congestive heart failure, myocardial infarction, chronic obstructive pulmonary disease and pneumonia) and answer common questions like what foods a patient should eat or how certain medications affect someone to increase the patient's overall confidence in remaining healthy in their home. APPs can also provide advanced assessments in the home and catch subtle symptoms that could lead to a readmission.

High-utilizer program: APPs make up to 12 weekly visitations to ensure EMS and ED high utilizers have the needed resources to manage their care and avoid countless visits to the ED.

Working with our Accountable Care Organization: Similar to the high-utilizer program, patients are given up to 12 weekly visits by an APP. The first visit includes a functional assessment, health assessment, fall risk assessment, nutritional assessment, advanced medical assessment, medication reconciliation and a psychological assessment. APPs outline care plans for these patients based on their needs through the direction of the medical director and the patient's primary care physician.

Initial APP Training

APPs are required to take a critical care course, which includes 100 hours of didactic training on pharmacokinetics/dynamics, respiratory and cardiac pharmacology, neuropathophysiology, gastrointestinal emergencies, renal and respiratory pathophysiology, pulmonary emergencies, left ventricular assist devices, special considerations in the elderly, and lab values. It's important APPs have a true understanding of what's happening inside the body based on their patient's illness. As follow-up with the education in the classroom, the students also complete 24 hours of clinical rotations in the *continued on page 8*...



role of the expert in the relationship. Instead, MI focuses on asking open-ended questions, giving affirmations, using reflective listening skills and skillfully summarizing the patient's statements to help the patient think about how best to solve their own problems.

Understanding Mental Health

Communication skills are particularly important when interacting with those with a mental health issue. In Pittsburgh, 70% of our patients report having a mental health diagnosis in addition to an average of three chronic medical conditions. Traditional EMS education places little emphasis on understanding mental health, focusing primarily on the issue as a potential safety concern. Community paramedics need a deeper understanding of mental health and what it's like to live with these diseases every day. That understanding helps us work within the capabilities of the patient to identify the most helpful forms of assistance.

Patient Navigation & Advocacy

In traditional EMS work, our assistance comes primarily in the form of medical interventions. We defibrillate, intubate, insert IVs, administer meds and provide a whole host of other

Case Study

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ICU, eight hours with a respiratory therapist and 12 hours in a pediatric ICU. Our critical care paramedics are confident and prepared to provide an advanced assessment and treat difficult medical patients after this course, and it's only at this level that they be considered for advanced training to the level of APP.

Specialty APP Training

Once we choose a group of APPs through a selective process, they're provided advanced training focusing on the needs of our community. Initially our training is focused toward community resources and the connection of patients to medical homes and assistance: Social workers provide didactic training over the resources available in our area, and a resource coordinator from the health resource center discusses the most common resources provided to patients and how they qualify. Following resource education, our APPs have eight clinical hours with a resource coordinator to obtain a better understanding of how to provide solutions to our patient's needs. Case studies are worked through as a group, deciding the most appropriate navigation for patients based on the presenting challenge.

Before APPs begin training with an APP preceptor, they're required to understand the CHAP mission, protocols and processes. APPs also undergo competency-based testing on providing a full medical screening, assessed by a designated physician. The final step is five shifts with an APP preceptor where they put what they learned to the test out in the field.

Continuing Education

Our APPs continue training throughout the course of their tenure with our program. Since CHAP inception, over 300 training hours have been logged. Training has included diabetes care; nutrition; ear, nose and throat assessments; wound care; advanced cardiology; common chronic medical illnesses; point of care testing; behavioral health; and more. APPs also are certified with vascular access devices through education and clinical rotations, understand how to manage and utilize peripherally inserted central catheter lines, and attend an eighthour clinical with a cardiologist in the hospital to assist with the assessment and treatment of cardiac patients. On average, APPs receive continuing education once a month and most of our educators are physicians or subject matter exerts in a particular area of medicine.

Provider Selection

Being an APP isn't everyone's goal at this particular time in his or her career, and it's important candidates fit the mold of this different type of provider—one that's focused on preventive medicine and healthcare resource navigation. It takes a special type of person who wants to have an ongoing relationship with patients and isn't in EMS for only trauma and emergency response. Most APPs have a lot of experience in EMS and are ready to try something new because they know this program truly changes the lives of their patients. It's wonderful to see this program evolve and watch our APPs assist in the development of a healthier community.

Shannon Watson, NREMT-P, is the community health supervisor for Christian Hospital EMS in St Louis, Mo. Shannon is an author, national speaker and advocate for the EMS career field. therapies that manage the acute conditions facing the patient. Although medical help can be an important part of an MIH-CP program, these patients are much more likely to need social services than medical interventions. That means community paramedics have to become familiar with the various organizations in their community that can provide financial subsidies, social support, transportation or other services the patient requires to be able to better manage their whole life, not just their medical needs.

From our traditional medical perspective, managing your health would seem to take priority over other issues. However, our experience is that when a patient is about to be evicted from their apartment, buying glucometer strips to better manage their diabetes drops to the bottom of their priorities.

Some patients just need the community paramedic to steer them to an organization that can help. In those cases community paramedics can provide lifesaving assistance just by navigating the patient to the right agency and providing their phone number to start the application proand advocacy services are just a few important examples of core competencies that most community paramedics should have. The list is by no means all inclusive. However, the scope of services provided by MIH-CP programs will always be largely dependent on what specific populations are being served, which stakeholders are involved and what resources are available in the local communities. For example, programs targeting mothers in high-risk pregnancies will be very different from programs that try to improve hospice care.

In addition to the different stakeholders involved, community paramedics need to be responsive to the cultural practices of their patients and their local communities to ensure they're delivering appropriate services for the patients and their families.

Conclusion

Each of these variables needs to be addressed in the initial training programs for the community paramedic. Programs designed to supplement primary care practices, home nursing agencies,

Community paramedics need to be responsive to the cultural practices of their patients & their local communities.

cess. Other times patients are overwhelmed by the application and enrollment process, which often requires the client to gather the medical and financial records needed to prove they need help. In those cases, community paramedics play a critical role in helping the patient successfully enroll in the programs by advocating on the patient's behalf.

Most organizations appreciate our assistance when we accompany patients to their appointments as we speak the same language, can help translate instructions for the patient and can be less temperamental than our clients when approvals take longer than expected.

Traditional EMS uses the ED as the sole source of definitive care. Community paramedics try to *avoid* the ED, and have many more options available for definitive care. Those options, however, require a solid educational foundation for the community paramedic to be able to navigate and advocate successfully.

Localization

Conducting an expanded patient assessment, developing better therapeutic communication skills, having a deeper understanding of mental health issues and providing patient navigation hospitals seeking to reduce readmissions or accountable care organizations providing chronic disease management services will have to spend time building the community paramedic's knowledgebase in each of those domains and will differ from those who are providing immunizations or biometric screening services.

As with any employee, the operational policies and procedures for the MIH-CP program will also need to be included in their initial training. EMS agencies providing MIH-CP programs need to develop patient and provider safety practices, medical direction guidelines and clinical protocols, information-sharing practices that address HIPAA and other medical-legal issues and documentation, quality improvement, and program evaluation metrics that are unique to their program. These policies and procedures are vital components of an MIH-CP program, and will have to be described in detail to community paramedics during their original training programs. **+**

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Clinical competencies taught in an MIH-CP training program will depend on the type of MIH-CP program and the existing competencies of each provider.

PHOTO COURTESY NORTH EAST MOBILE HEALTH SERVICES

Becoming Clinically Competent

Strategies for developing an effective MIH-CP education curriculum

By Scott Bourn, PhD, RN, EMT-P

s EMS involvement in MIH-CP has grown, one of the key questions to arise has been what education is required to safely (and legally) deliver MIH-CP care. Educational preparation of CP providers remains extremely diverse. In a recent MIH practices survey conducted by the National Association of EMTs (NAEMT), 26% of respondents reported that their system had *no* specific educational or experience requirements. Within programs that did require specific training, clinical topics (67%), communications (66%), community services (63%) and patient navigation (60%) were common topics.¹ While the national dialog continues, there's no sign of consensus on the horizon.

Until a national strategy for MIH-CP education exists, each community may need to select or develop their own educational approach. This article describes a proven approach for developing successful and accountable educational programs, and illustrates the use of that approach at American Medical Response (AMR) and Evolution Health (EvH) to develop an MIH-CP educational program that has successfully trained providers from multiple disciplines and credentialed them to practice in six states. Hopefully such a systematic approach will prevent EMS agencies from hastily creating educational programs that meet the urgent need for something but either fail to create safe MIH-CP clinicians, or unnecessarily limit the practice of those clinicians after they enter the workplace.

Guiding Principles

One of the primary purposes of professional clinical education is to enable learners to achieve the competencies required to safely practice their profession. To meet this purpose, educational tools must be built upon the following two guiding principles:

First, the competencies required for clinical practice must be established and agreed upon. Competencies are things that clinicians must know and be able to do in order to safely practice. We can't create an education program that prepares clinicians to practice if we don't understand the competencies of that practice.

Second, the education process itself must

be learner-centered. Learner-centered relates to the focus of content and the process for learning. Content needs to be focused on the gap between what learners already can do and what they need to learn to be competent in the new practice.

Taken together these two principles guide development of MIH-CP education in the following ways:

Defining competencies: An educational program of any kind must begin with a clear list of competencies for participating EMS personnel.

Content selection: Developing learning content and activities should be guided by answering the question, "Given my learners' prior knowledge and experience, will this teaching activity improve their ability to successfully perform the competencies of MIH-CP?" Only include activities for which the answer is "Yes."

Individual needs: Learning activities need to be tailored to the individual learner, recognizing and honoring each student's prior experience. Don't force all MIH-CP learners to participate

Table 1: A comparison of EMS and MIH-CP clinical environments		
	Traditional EMS	MIH-CP
Nature of patient encounter	9-1-1 or interfacility transport	Discharge planning; hospital refer- ral; request for unplanned care; pre- vention; in-home follow-up; visit on behalf of home health, hospice and/or mental health
Clinical decisions	Strict adherence to specific protocols: transport to ED or non-transport	Adherence to broad care guidelines: Evaluate/refer to other provider; eval- uate/treat/monitor in home; evaluate/ assist in making appointment; trans- port to primary care office, urgent care, diagnostic center, inpatient facility
Patient safeguards	ED evaluation	Collaborative care plan with other providers; clear longitudinal medical record; telepresence; 24/7 telephone access for patient and family
Information and documentation	Typically little/no access to prior records from other caregivers; cre- ation of single episode record that's sometimes accessible to ED staff	Variable access to prior records from other caregivers; creation of multiple entries on a longitudinal care record accessible to other care providers
Patient activation	Informed consent required; very little collaborative decision-making with patients or families	Successful chronic disease manage- ment relies on meaningful patient activation and participation in decisions
Appropriate educational model	Standardized curriculum focused on short delivery time, limited critical thinking and strict adherence to protocols	New model emphasizing needs- based curriculum, significant critical thinking, broad understanding of care pathways and guidelines, and inter- professional and multidisciplinary care delivery

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in content that only some of them require.

Achieving mastery: Successful completion should be defined as demonstrated mastery of the required competencies, and nothing less.

Challenges to Training Development

Developing education for MIH-CP providers is challenging for a number of reasons. First, required competencies vary dramatically among communities, and are sometimes poorly understood within them. Some programs are primarily focused on the needs of EMS/ED "frequent faces," others concentrate on reducing hospital readmission of specific patient groups, and still others emphasize the unplanned care needs of hospice, mental health or other unique care categories. Within each of those clinical practices, what *exactly* will EMS providers do? Each brings with it a differing set of competencies.

Learner experience adds to the challenge. The NAEMT survey found that 61% of MIH-CP providers have three or more years of EMS experience.¹ These individuals are already educated and licensed/certified to perform within their scope of practice in a specific practice environment, so MIH-CP education will optimally "begin" on top of their existing competency rather than forcing them to consume content they've already mastered.

Finally, MIH-CP competencies in many cases require learners to perform "existing" skills in a dramatically different clinical environment. Consider the differences between EMS and MIH-CP practices listed in Table 1 on p. 11. In most MIH-CP systems, EMS professionals are *not* performing patient care tasks that are dramatically different than those they perform in 9-1-1 or interfacility transport. But the significant differences described in Table 1 require educational preparation that improves critical thinking and collaborative decision-making, encourages patient activation, and improves the ability of clinicians to review and contribute to longitudinal medical records.

For most EMS systems, developing an educational course for MIH-CP will be challenging and time consuming. As a result, some communities may be tempted to borrow or buy existing curricula from established programs; 34% of programs in the NAEMT survey report using a curriculum from another source.¹ This strategy can only succeed if the organization's clinical practice and competencies are extremely well matched to those of the organization that created the training. This mismatch is likely the reason that 61% of respondents in the NAEMT survey reported creating their own training.¹

Strategies for Success

In early 2014, AMR and EvH were confronted with a similar challenge. The two organizations were exploring development of MIH-CP programs that combined the home health and physician/nursing/midlevel expertise of EvH with the call-taking, resource matching and EMS provider capability of AMR. We wanted to ensure care providers from all disciplines were adequately prepared for their MIH-CP roles, and unsuccessfully sought a training program that would meet our needs. Here are the steps we followed to develop our MIH program, and the lessons we learned:

1 *Identify competencies:* We spent almost a month leaders of our own clinical leaders and the leaders of successful MIH-CP programs, to identify 12 clinical competencies we felt *all* MIH clinicians needed to have in order to provide safe and effective care. Examples include "demonstrate knowledge of the continuum of care, patient navigation, preventive care, acute care, chronic care, disease state management and care transitions," and "value the team-based approach to MIH-CP practice and the importance of the experience of care."

2 Develop specific learning objectives for the competencies: We created over 60 individual objectives for our 12 competencies from both the cognitive and affective domains. Because no practitioners were being trained to perform outside of their scope of practice, there were no psychomotor (skills) objectives. The predominance of higher-level objectives—e.g., recognize, demonstrate, apply, evaluate or distinguish—over lower-level objectives—e.g., know, list or understand—had substantial impact on our instructional design.

3 Identify competency "gaps": Our clinicians brought significant expertise to the program so we identified very few clinical competency gaps related to assessment or diagnosis. However, virtually all clinicians had significant gaps around systems of care, quality and the triple aim, and team-based care. These "gaps" became the backbone of our program.

4 *Clarify which gaps apply to all MIH programs:* Like most MIH-CP programs, the exact services to be provided varied among the communities we intended to serve. Accordingly, we developed a core curriculum, which contained objectives that applied to *all* programs and is

Case Study: Community Healthcare Emergency Collaborative's standardized MIH-CP curriculum

By Anne Montera, RN, BSN

In 2007, a group of educators came together and formed the Community Healthcare Emergency Collaborative (CHEC), with the charge to create an MIH-CP training curriculum that gives students the competencies, knowledge and professional skills to function as a community paramedic. They chose a community health worker curriculum as the basis, but expanded its medical aspects. The first course was taught in Minnesota by Hennepin Technical College in 2009.

A second edition of the curriculum was developed in 2010 for use by Colorado Mountain College in Eagle, Colo. A local education committee reviewed the four-module curriculum to determine what would work in the community. Twelve students took the course but only three completed the requirements—MIH-CP was such a new concept that the other nine students were enrolled to just "check it out."

Current Curriculum

A new group of subject matter experts and educators were brought together in 2011 to review the second edition and revise it to the third and current version. The four modules were transformed into seven, expanding the student's knowledge about the healthcare system, primary care and public health, the social determents of health, and cultural competency.

Heavy emphasis is placed on community, including patient navigation, conducting health assessments and creating a community-specific web of resources. A section on personal safety and wellness was added, as well as a clinical and lab section, which includes information about expanded history taking and assessments, documentation, and chronic disease management.

The curriculum's structure is based on contact hours and clinical hours, and can be adjusted to meet the needs of the state, region or educational institution running it. The program has established competencies and a framework, which lists the minimum core specifications in receiving a certificate of completion.

The curriculum was developed with the experienced provider in mind—students who lack a significant amount of prior EMS experience may not be successful in completing the program. The length of the program is dependent on the level of the student entering the program. The core educational experience is a didactic course estimated at approximately 100–200 hours. Estimated hours for the clinical foundation also vary based on the education and experience of each student, but the MIH-CP services being provided and the need in the community also affects course duration, which ranges from 50–200 hours, averaging 100 hours.

Seeking to establish standardization and identify future goals for development, CHEC conducted a survey of the current and planned offerings of the curriculum in 2013. The results showed 35 colleges were teaching or ready to teach the curriculum and 12 were planning to teach it in the future. Since then, 12 additional courses are being taught and over 100 are in the planning phase.

California just used the CHEC MIH-CP curriculum in a statewide MIH-CP course for 13 regional MIH-CP pilot programs in February 2015. The didactic course was completed by 77 of 79 community paramedics in a six-week, fast-track course; they're currently working on the site-specific clinical portion.

Evolution & Continuing Education

A new group of educators and subject matter experts who are running successful MIH-CP programs have come together to update the curriculum to the fourth edition. The changes will be made based on an extensive evaluation of MIH-CP courses and recent results from an institutional review board-approved study.

The CHEC is also involved in supporting and developing continuing education (CE) for MIH-CP providers, working with several conferences to provide CE sessions and identifying areas where the core curriculum can be expanded as the focus and scope of MIH-CP programs evolve.

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required for *all* clinicians. To avoid mandating training on topics that may not be used, we created specialty courses (e.g., hospice, mental health) for use in communities that offer those programs.

5 Develop an instructional plan: A significant body of knowledge shows that lecture has limited value for adult learners.² Lectures tend to focus on factual content that can often be better learned through reading. In addition, the high level of our objectives required students to do more than regurgitate facts; they needed to *demonstrate* application of competencies in realistic patient situations.

Our instructional plan called for a single lecture, approximately two hours long, which communicated the program's beliefs and expectations and gave students high-level familiarity with the competencies. Pure knowledge-based content was provided through guided discussion of four groups of focused articles that supported the objectives. Every clinician was required to contribute to these discussions to demonstrate their mastery of the objectives.

Participants then applied what they'd learned to their MIH-CP system through a series of case studies. Learners were broken into interdisciplinary groups, each working on a unique case that followed a single patient for several weeks. Groups came back together to share what they learned with the rest of the cohort.

Develop a delivery plan: We determined that communities starting MIH-CP programs would initiate training to a small select group of clinicians, and that they might need to "go live" fairly quickly. This made conventionally scheduled classes ineffective. Following our learner-centered principle we created a program that could be started at any time and completed largely online. An introductory "lecture" is offered by webinar every 2-4 weeks, and is always available in recorded form. Articles are posted on an online learning platform, and guided discussion is managed through threaded discussions that encourage interaction among learners. Online platform records verify that each learner posted comments and participated for each article. Case studies are posted online as well, placing students in groups that create and revise care plans for patients over a 1-2 week period. Approximately 40% of case discussions to date have been held online, with the balance done within individual communities.

Use clinical credentialing to support quality: Like physicians who are credentialed to

perform specific procedures within a hospital, we elected to individually credential each clinician within our MIH-CP systems. Credentialing enables general MIH-CP and specialty care based on each provider's course completion and the approval of the local MIH-CP medical director. Credentialing is active for two years and requires ongoing assessment of actual patient encounters and continuing education to renew. O Measure impact: We measure the impact of Our educational model in two distinct ways. First, participants must complete a course completion survey in order to receive their certificate. This feedback has resulted in multiple corrections in our instructional plan and delivery. Over 88% of participants currently report that course content is very or extremely pertinent to their clinical practice, and 73% are very or extremely satisfied with the online format. Second, we collect data on the clinical impact of MIH-CP programs we operate. This measurement provides validation of our clinicians' ability to meet the required competencies of the MIH-CP program.

Conclusion

Since our first course in October 2014, we've enrolled almost 120 physicians, pharmacists, physician assistants, nurse practitioners, paramedics and nurses in our MIH-CP education program. Course dropouts were fairly high in 2014, but have decreased to almost zero in 2015. We've so far credentialed 46 practitioners who are successfully practicing in MIH-CP programs based in six states, with 25 additional individuals nearing program completion. We believe this structured approach has created clinicians who meet the MIH-CP competencies we identified, and each can now safely and successfully care for the over 300,000 chronically ill, homebound and medically fragile individuals for whom they are responsible. 🕇

Scott Bourn, PhD, RN, EMT-P, is vice president of clinical practices and research at American Medical Response and president of the National Association of EMS Educators.

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Essential components of a successful MIH-CP program

By Anne Marie Jensen, EMT-P

They say if you've seen one EMS system, you've seen one EMS system. Did we really think MIH-CP would be any different? Communities deserve services matching their unique needs, so we shouldn't be alarmed at the variety of MIH-CP programs. However, it does beg the question: How do you know if you're doing it right? There's no single defining result, invention, moment or activity that can determine the validity or value of a program; however, there are certain attributes that make a program excel.

1. The Right Purpose

Chances are you already have a laundry list of potential community needs and social issues you see a need to address. Perhaps those needs are illustrated through data or organizational requests for help. Needs may also be anecdotal, requiring innovative measurement strategies to validate them. Conducting a formal needs assessment will help you prioritize community needs above general trends or professional pressure. Working for the right purpose will lead to the highest personal and professional satisfaction.

2. The Right People

Success of your program will depend greatly on having the right people involved. You'll need executive sponsorship, medical director support and the right team of community paramedics. MIH-CP program managers often mention they have trouble finding the right person. If you have this issue, consider holding the position open until an ideal candidate comes along. People not suitable—or not interested—in being a community paramedic leave your program at risk. Set aside seniority and, above all, look for discipline, compassion, enjoyment of work and an agile mind.

3. The Right Culture

The culture shift from 9-1-1 response to community-based work is drastic, and the right team is essential to propagating a successful culture. Culture will define the collective work ethic and coping mechanisms of the program. Although community paramedics work within the framework set by industry standards and regulations, these standards aren't comprehensive enough to govern behavior in the new frontiers of patient needs addressed by MIH-CPprograms. A healthy program culture will bridge across program vulnerabilities and keep your agency safe.

4. The Right Structure

The structure of your program—chain of command, policies and procedures, core measurements, health information management, intelligence management, and technology—is one of the most tangible aspects of an MIH-CP program. Resources to guide program structure are increasingly available as organizations across the country work together to define essential program components and establish best practices.

5. The Right Craft

"Craft" refers to the special skills required to cause change at the patient, local, state or federal level. At the patient level, craft is composed of assessment techniques, personal skills or other skills that facilitate change in a patient's behavior or situation. This requires research alongside specialized training. At the local, state and federal levels, craft is bridging the divide between a vulnerable individual and public policy—acting as advocates for effective policies and scopes of practice that will improve the lives of your community members.

6. The Right Partners

It's important to avoid territorial thinking or competition when serving your patients. Always keep the focus on your purpose and your patients, and work in the spirit of collaboration. Build partnerships with organizations to strengthen your efforts and help to alleviate patient suffering. And remember, your purpose, craft and culture will be vital in attracting the right partners. Additionally, take every opportunity to share knowledge, expertise and experiences with sister programs in other communities.

Conclusion

As you build your program, you'll be met with inevitable challenges that will stretch you and stress you. The best way to tackle big problems is through small, deliberate and simple steps. In time, these small steps will build upon each other and lay the framework for powerful MIH-CP programs.

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Synergistic, Not Competitive

Establishing partnerships between home health and EMS-based MIH-CP programs

By Matt Zavadsky, MS-HSA, EMT

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ealthcare finance reform is dramatically changing the landscape of healthcare delivery. Economic models focusing on the goals of Institute for Healthcare Improvement's Triple Aim are incentivizing providers to integrate their care across the continuum. A main tenet of the healthcare system's transformation is the encouragement of the use of multidisciplinary care teams to help patients navigate our very complex healthcare system.

One of the most important collaborators in developing and implementing an EMS-based MIH-CP program is home health, including hospice. Often, when home health agencies first learn of MIH-CP programs, one of their common reactions is, "This sounds a lot like home health." But it's different, and here's why.

Patient Navigation

A typical goal of EMS-based MIH-CP programs is to navigate patients through the healthcare system, not to replace healthcare system resources already available in the community. Home health, including hospice, is a very valuable link in the chain of healthcare—and for qualifying patients, a logical care delivery model.

There are, however, gaps in the delivery system home health services may not be able to fill that EMS MIH-CP programs can assist with:

- Some patients don't qualify for home health because they don't have the benefit available, aren't homebound, or have exhausted the benefit period.
- It sometimes takes a day or two between the home health referral and the first visit.
- Patients sometimes call 9-1-1, without the knowledge of the home health agency.

Patients who may not qualify for home health may still need assistance with understanding how to manage their healthcare needs, connecting with patient-centered medical homes or resolving a number of issues that often result in preventable admissions or trips to the ED. There are also patients who aren't aware they qualify for home healthcare or hospice and MIH-CP programs help identify them earlier and engage them with their home health partners. In fact, the National Association of EMTs recently released a survey of 103 EMS agencies operating an MIH-CP program, which revealed that 66% of operating programs responding to the survey *refer* patients to home health.¹

Consider the following real-life scenario of a patient enrolled in the MIH-CP programs provided by MedStar Mobile Healthcare in Fort Worth, Texas: A 73-year-old patient with chronic obstructive pulmonary disease enrolled in Klarus Home Care calls 9-1-1 for a dyspnea presentation. The traditional EMS response to this call would nearly always result in a transport to the ED, often without Klarus even being aware of the call. Instead, because this patient is registered with the Klarus/MedStar partnership, the 9-1-1 call generates an added resource to the call: a MedStar Mobile Healthcare paramedic (MHP) with specialty training provided by Klarus and access to the patient's home health records. The Klarus staff is notified by the communications center that MedStar is responding and the on-call nurse looks up the patient's record while awaiting a consultation call from the MedStar MHP on scene.

Once on scene, the MHP consults with the Klarus nurse and they jointly determine the appropriate clinical interventions to be implemented using protocols agreed to between the Klarus medical director and the MedStar medical director. This results in the patient receiving the necessary immediate care at the home, with a Klarus nurse following up with a home visit scheduled later the same day or the next day.

Without an EMS-based MIH-CP and home health partnership, Klarus wouldn't know about the response until a nurse arrived for a scheduled appointment and discovers no answer at the door because the patient was in the hospital.

In addition to sharing information and resources to avoid unnecessary ED admissions, there are other synergistic partnerships that can benefit the patient and home health.

Backup services: Occasionally, the need for episodic services for a home health patient may exceed the capacity for the home health agency to respond to the patient's need. In the past, it might be recommended by the home health agency that the patient go to the ED, or call 9-1-1 based on the patient's symptoms. In an MIH-CP/home health partnership, the home health agency could call the EMS-based MIH-CP provider to complete the home visit for them. On-scene care coordination could occur as in the previous scenario.

Business development: Since one of the new goals of hospitals is to reduce readmissions, home health agencies may suffer if hospitals stop referring patients to them because their patients frequently return to the ED or are readmitted to the hospital. Further, home health agencies are about to be financially rewarded or penalized for readmissions in much the same way





the hospitals are being held accountable. It's therefore in the best interest of the home health agency to effectively reduce preventable ED visits or readmissions.

MedStar's partnership with Klarus has been in place for over a year, with 541 home health patients currently enrolled in the program.

Hospice Care

The goal of a hospice agency is to help the homebound patient transition to their afterlife with comfort and compassion. The family is instructed in the proper way to access the hospice nurse if the patient begins to struggle at home. Unfortunately, when experiencing the stress and immediate concern of seeing their loved one struggle, many families call 9-1-1.

That starts a domino effect: The EMTs and paramedics assess the patient and find them in clinical distress. The family is scared and often can't locate the DNR. In those cases, most EMS providers do what they're trained to do-start treatment and take the patient to the ED. Once in the ED, the hospital initiates care and the family may decide this is all too overwhelming and voluntarily disenroll the patient from hospice. Or, due to the high cost of the hospital admission, the hospice agency may revoke the patient's hospice status. This scenario isn't in the best interests of the patient nor the hospice agency. The patient's wishes aren't fulfilled; the hospice agency is left with an ambulance bill and ED bill to pay and loses the per diem fees normally available had the patient stayed with their service.

Now, imagine a different outcome from the same scenario: The family calls 9-1-1, the intake computer system notifies the call taker this

EMS-based MIH-CP programs can help to fill gaps in the healthcare delivery system that home health or hospice care services may not be able to fill.

patient is enrolled in the partnership between a hospice and EMS-based MIH-CP program. This starts an alternative domino effect: A hospicetrained MHP joins the ambulance response team and the patient's hospice nurse is notified. When the MHP arrives on scene, they assess the patient and determine if the clinical issue is part of the hospice plan of care. They access the medications in the patient's hospice "comfort pack," alleviating the patient's suffering. They then remind the family of the goal of hospice care and the wishes of the patient, and let the family know the hospice nurse is on their way. The MHP offers to wait with the family until the hospice nurse arrives and releases the ambulance back into service. As a result of the MIH-CP/hospice partnership, no transport was initiated, there was no revocation of hospice care and the patient's wishes are realized.

This exact program has been in place in Fort Worth for over a year. A total of 179 patients at high risk for revocation have been enrolled and only 20 have voluntarily disenrolled.

Conclusion

Home health and hospice agencies serve a vital role in healthcare delivery. EMS-based MIH-CP services should be diligent in seeking out partnerships with them to find opportunities to add value and enhance—not replace—these services in the community.

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10P 10 for MIH-CP Success POINTS

By Gary A. Smith, MD, MMM, FAAFP

MIH-CP programs are uniquely qualified to enhance the quality of patient care at a reduced cost and improve patient outcomes. The most important first step in developing a successful MIH-CP program is to identify the needs of the community, regional hospital, healthcare system, insurance plans and caregivers so appropriate services and solutions can be provided. Here are 10 other areas that are essential for flourishing MIH-CP program models.

1. Culture shift: The EMS response agency must be willing to undertake a cultural shift from exclusive 9-1-1 response to identifying and providing preventive services to patients over-utilizing EMS. These individuals cost the healthcare system billions of dollars annually and tie up emergency responders. This culture change is extremely difficult in many municipal organizations.

2. Healthcare integration: The emergency response agency must be willing to identify the pains of the insurance plans, hospitals, skilled nursing facilities, physicians, home health and hospice organizations to ensure full integration and recognition of MIH-CP programs within the local healthcare system. It's important to be flexible during this integration; these essential relationships will validate the MIH-CP program model.

3. Identification of high utilizers: Frequent callers and ED visitors decrease the ability of EMS agencies to respond to high-acuity calls, thereby increasing response times to these incidents. These low-acuity "super-users" also create a bottleneck in the ED, decreasing the quality of medical care, extending wait times and increasing "wall time" of ambulances.

4. Right-size your responses: Consider providing medical director-approved protocol services that allow an appropriate response to low-acuity calls where one may treat and refer patients at the point of service. MIH-CP units are uniquely qualified to manage these low-level urgencies when the configuration is correct (i.e., paramedic, physician assistant, nurse practitioner, mental health professional, registered nurse and/or social worker). This increases the quality of care at the time of need and provides for most appropriate facility destinations that will likely not include the ED. It's recommended the advanced providers conduct a 24-hour follow-up to those treated to determine the patient's outcome. **5. Establish partnerships:** Identify federal, civic, volunteer, low-cost healthcare facilities, pharmacies and other community resources that may benefit low-acuity patients being seen by MIH-CP providers. Develop relationships with insurance plans, healthcare organizations, hospitals and physician groups that may be willing to assist with "super-users."

6. Provide gap coverage to hospice patients:

It's costly to manage end-of-life issues and provide for palliative care. These patients often experience episodes of pain, nausea, shortness of breath and behavioral changes that alarm family members and caregivers. MIH-CP programs are capable of intervening on these patients without revocation of hospice services to manage the patient at home until a hospice team member is available to assume care.

7. Partner with home health: Partnerships with home health agencies will lead to improved patient outcomes. It's difficult for home health team members to make appropriate visits within 72 hours of hospital discharge. Fire stations are strategically placed to provide the most appropriate service at the time of the need, decreasing response times to the most emergent patients. Urgent responses to home health patients can be well-managed in a timely manner from these stations.

8. Decrease hospital readmissions: About a quarter of all hospital patients are readmitted within 30 days of hospital discharge, but this number can be reduced to 15% and 5% when a recently discharged patient is seen within 72 hours and 48 hours, respectfully. The reduction in readmission will save the hospital millions of dollars of lost revenue through nonpayment and imposed Medicare penalties.

9. Address the behavioral health issue: Provide services to behavioral health patients, field medical screening and appropriate disposition away from the ED to facilities specializing in the care of these individuals. This will assure the best outcome for the patient, keep emergency response personnel available and increase the number of open ED beds to manage the high-acuity patients.

10. Be patient advocates: Most importantly, MIH-CP providers become the patient's advocate. Polypharmacy is very common in the elderly population and adverse drug reactions may occur, leading to emergent transport to an ED. Medication reconciliation should be accomplished with each MIH-CP patient encounter. Providing for the most appropriate care and facilitating patient follow-up with their respective physician is crucial.

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Top 10 Areas of Focus Implementing a MIH-CP Program*



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*Guidance on the most important things an agency must address to successfully implement an MIH-CP program Norman Seals, Assistant Chief - Emergency Medical Services Bureau - Dallas (TX) Fire-Rescue Department