Beyond 911: State and Community Strategies for Expanding the Primary Care Role of First Responders

Hollie Hendrikson, Alise Garcia

"The concept of community paramedicine represents one of the most progressive and historically-based evolutions available to community-based healthcare and to the Emergency Medical Services arena."

-- Joint Committee on Rural Emergency Care, National Association of State EMS Officials, December 2010

I. Introduction

Emergency departments (ED) across the country—from the nation's largest medical centers to the most remote critical access hospitals—spend a disproportionate share of staff and financial resources providing non-urgent care to patients who often would have been better served in a primary care setting.

- According to a 2010 study by the RAND Corporation, between 14 and 27 percent of all ED visits are for non-urgent care and could take place in a different setting, such as a doctor's office, after-hours clinic or retail clinic, resulting in a potential cost savings of $4.4 billion annually. Inappropriate use of the emergency department comprises a relatively small, but disproportionate share of health care resources.

- A 2010 study published in the Annals of Emergency Medicine found that frequent users comprise 4.5 percent to 8 percent of all ED patients, yet account for 21 to 28 percent of all visits.

In addition to the economic costs, frequent use of emergency resources exacts a price on individual and community health. Patients with a regular physician are more likely to receive preventive services and timely care for conditions before they become more expensive to treat. Moreover, patients with a regular doctor have fewer preventable ED visits and hospitalizations. As a result of the potential for cost savings and improved health outcomes, policymakers, emergency medical services (EMS) personnel and health care providers in states and communities across the country are testing strategies aimed at curbing

unnecessary use of emergency services.

Local EMS personnel are at the heart of many new community-based innovations. In addition to providing traditional emergency care, in rural and urban areas throughout the country EMS personnel are checking up on high-risk patients—those that are most likely to be frequent users of the ED—and helping them manage their chronic diseases, adhere to medication plans, enroll in insurance coverage or access social services. While each community's program looks different, the goals are similar: improve individual and community health, reduce unnecessary hospitalizations and ED visits, and reduce healthcare costs.

In this paper, NCSL examines the evolving role of EMS personnel, notably Emergency Medical Technicians (EMTs) and paramedics, in a model of care known as community paramedicine. We summarize the challenges and opportunities related to implementation of these initiatives, as well as state and local activities related to an expanded role for EMS personnel.

II. Background: Drivers of ED AND EMS (Mis)use

Emergency department use is on the rise. Between 1996 and 2006, hospital EDs experienced a 36 percent increase in patient visits. Many of these visits are for non-emergent care. The trend has strained ambulance services and EDs throughout the country and contributed to rising hospital and EMS costs.

Understanding the factors that contribute to patient use of the 911 system and local emergency resources is an important first step for policymakers and health officials who want to develop interventions that meet a community's specific needs. Although the reasons vary within and across communities, researchers have identified several risk factors that contribute to misuse of emergency services. They include lack of access to primary care providers, a growing population with chronic illnesses, homelessness and other factors.

Lack of Access to Primary Care Providers and Services

In 2012, 54 million Americans lived in areas designated by the U.S. Health Resources and Services Administration as having shortages of primary medical care. Nearly 44 million Americans lived in dental shortage areas and 87 million Americans lived in mental health shortage areas. Individuals who lack a primary care provider and medical home are more likely to use emergency rooms for care that could have been provided more effectively and inexpensively in a primary care setting. Between January and June 2011, almost 80 percent of adults visited the ED because they did not have access to another provider, according to the National Center for Health Statistics.

"Lacking ready access to care, one of five chronically ill adults visited the emergency room for care they could have received from their primary care practice," according to a recent report by The Commonwealth Fund. Lack of providers is especially pronounced in rural areas, where only 10 percent of the nation's physicians practice, even though one quarter of the U.S. population lives there. Rural communities have a disproportionate share of elderly, poor and chronically ill residents and they often have to travel great distances to access primary care providers and specialists. Without access to primary care, patients in rural and urban communities alike may forego or delay primary care and/or mental health services that could

help them manage their health and avoid costly hospitalizations.

Chronic Illness and Medical Severity

Patients with complex medical needs and untreated chronic diseases are often frequent users of the ED, resulting in more costly care. According to a 2010 journal article in Prehospital and Disaster Medicine, severe medical conditions, such as asthma, drove ED use among the elderly when no primary care provider was available. Patients with co-occurring chronic disease, mental illness and/or substance use disorders may use the ED periodically as their only source of care.

Homelessness

Homelessness is strongly associated with frequent use of emergency departments, according to the Agency for Healthcare Research and Quality, which found significantly higher rates of ED visits and hospitalizations for homeless individuals. Emergency department encounters were nine times higher among homeless single men, 12 times higher for homeless single women and 3.4 times higher for homeless adults in families.

III. Expanded Primary Care Roles For First Responders: Opportunities And Challenges

What are Community Paramedics?

According to the Joint Committee on Rural Emergency Care, community paramedics are defined as "a state licensed EMS professional that has completed a formal internationally standardized educational program through an accredited college or university and has demonstrated competence in the provision of health education, monitoring and services beyond the roles of traditional emergency care and transport and in conjunction with medical direction. The specific roles and services are determined by community health needs and in collaboration with public health and medical direction."

Source: Joint Committee on Rural Emergency Care, "State Perspectives Discussion Paper on Development of Community Paramedic Programs," December 2001.

EMS systems have historically focused on providing patient care for acute illnesses and emergencies, a role that is reinforced by current payment practices that reimburse EMS providers for emergency responses. However, with studies suggesting that 10 to 40 percent of EMS responses are for non-emergent situations, the role of the EMS provider is being reconsidered. Many states and communities have discovered that emergency responders offer an untapped resource for connecting high-risk and underserved patients with needed primary care services. With their strong ties to the local community, first responders can play a unique role by extending the primary care provider's reach into the patient's home and/or in a community setting. There, the first responder can perform a wide range of health care and social support activities in tandem with other providers in the patient's medical home.

In what is commonly referred to as community paramedicine, community paramedics (CPs) are trained to perform an expanded role within their scope of practice. Examples of services provided by CPs are summarized below in Table 1.

Table 1. Examples of Expanded EMS Services

EMS Function	Examples
Assessment	• Checking vital signs • Blood pressure screening and monitoring • Prescription drug compliance monitoring • Assessing patient safety risks (e.g., risk for falling)
Treatment/ Intervention	• Breathing treatments • Providing wound care, changing dressings • Patient education • Intravenous monitoring
Referrals	• Mental health and substance use disorder referrals • Social service referrals
Prevention and Public Health	• Immunizations • Well Baby Checks • Asthma management • Fluoride varnishing and oral health activities • Disease investigation

Their roles vary in rural and urban communities, where community needs may differ. According to a 2012 evaluation tool developed by the U.S. Office of Rural Health Policy, "each of the successful programs now in place across the country was uniquely and specifically designed to meet one or more health care needs essential to that community." Urban areas typically utilize community paramedic programs to address the various health care, mental health, housing and social service needs of a discrete group of frequent ER users, with the goal of keeping them out of the emergency services system. While rural areas also focus on reducing unnecessary ED use, community paramedic programs tend to focus on fulfilling the unmet primary care needs of underserved, rural patients.

As part of the community paramedic model, EMS workers play a critical role in the shift away from episodic emergency care to regular and consistent care. Initial outcomes data are promising and suggest that such programs have the potential to reduce ED visits and related transportation and ED costs. Through home visits and, in many cases, community-based

prevention strategies they are helping patients independently manage their health, resulting in better health outcomes and fewer ambulance trips and ED visits.

Implementation Challenges

Despite the potential benefits, community paramedic initiatives face financial, policy and regulatory, and workforce challenges—many of which are being addressed through state legislation and/or policies, research and ongoing engagement with other primary health care providers.

Lack of Reimbursement. Currently, many pilot programs do not receive reimbursement from traditional healthcare payers, but rely instead on a mix of state and grant funds to support community planning, program development and community paramedic training. Although Medicaid and private insurance does not currently recognize or reimburse community paramedics for their services, some states and communities are taking steps to authorize reimbursement from public and private insurers.

- **Minnesota** passed legislation that authorized the state's Medicaid program to reimburse certified CPs for specific services. Although the law applies only to public coverage, policymakers and state officials believe that private insurers will follow suit.
- Other communities, including western **Eagle County** in Colorado, are gathering data about program effectiveness and return on investment, which they believe will build a strong economic case for public and private reimbursement for community paramedic services.

Regulatory Challenges. Lack of formal recognition of this new class of EMS personnel has created concerns about their scope of practice and the oversight system for ensuring patient safety. As a result, states have taken steps to define this new class of paramedics and address regulatory barriers to community paramedic initiatives.

- **Minnesota** passed legislation in 2011 that formally recognized community paramedics as a distinct provider, and clarified their educational and training requirements.
- In 2012, **Maine** lawmakers removed regulatory barriers by authorizing up to 12 pilot programs throughout the state.
- In **Colorado**, the state EMS office is developing a new regulatory framework that provides oversight through a conditional license for community paramedics.

Workforce Challenges. Several community paramedic programs have encountered opposition from other health professionals, including nurse and home health care associations, which have opposed or questioned the expanded paramedic role on the grounds that these new duties encroach on their scope of practice. Many communities have found that engaging community members and providers throughout the process is an essential way to clarify roles, address concerns and develop strategies that make optimal use of all provider types.

IV. Federal Actions

While community paramedicine initiatives are primarily grassroots efforts—born out of the need to solve pressing community health problems—their evolution takes place within a rapidly changing national health care landscape. The impact of the Patient Protection and

Affordable Care Act (PPACA) on these community-based initiatives is not yet fully understood, but many key provisions of the legislation will likely affect EMS agencies and initiatives and the environment in which they operate.

Federal Policy Trends

Several federal policy and funding approaches and trends appear to support the development of community paramedicine and similar healthcare approaches.

Shift to Value-Based Purchasing. Although community paramedic services are not currently reimbursed under Medicaid, the shift in federal and state payment methodologies—away from fees paid for each service toward payment based on value and patient outcomes—could align with EMS personnel that work in a team to deliver low-cost, high-quality, coordinated care. The Accountable Care Organization program, for example, provides incentives for health care providers to coordinate care for Medicare recipients. Under the program, providers accept a flat rate for the care provided to a patient, rather than fees for every service and procedure. Under value-based reimbursement, providers have an incentive to coordinate care and provide the most efficient and effective care possible.

What Are Patient Centered Medical Homes?
The National Committee on Quality Assurance (NCQA) defines PCMHs as "a model of care that strengthens the clinician-patient relationship by replacing episodic care with coordinated care and a long-term healing relationship. ...The medical home is intended to result in more personalized, coordinated, effective and efficient care."

Shift to Medical Homes and Coordinated Care. The federal legislation supports Patient Centered Medical Homes (see right) in multiple ways, including enhanced Medicaid and Medicare payments, as well as support for medical home demonstration projects. PPACA also enables states to receive federal reimbursement for health home services for Medicaid populations with chronic illnesses.

There are numerous types of medical home initiatives, including public (e.g., Medicaid PCMH programs), private and multi-payer initiatives. According to a December 2011 report issued by The Commonwealth Fund and the National Academy for State Health Policy, public programs have taken the lead with medical homes, especially among individuals with chronic disease. "Public payers, especially Medicaid, have been leaders in these efforts, with the hopes of preventing illness, reducing wasteful fragmentation, and averting the need for costly emergency department visits, hospitalizations and institutionalizations."

The role of community paramedics aligns with and supports medical homes by extending the care provided by a patient's primary care provider. Many community paramedics reinforce the medical home concept by linking patients with a primary care provider. In addition, community paramedics foster coordination of care by delivering services in accordance with the patient's overall care plan. A 2010 strategic plan by the Joint Committee on Rural Emergency Care recommended that EMS reimbursement should be linked to medical home reimbursement and not contingent on transportation. In the future, the report envisions that "Community paramedicine providers are included in medical home reimbursement and/or other reimbursement arrangements for rural primary care physicians and facilities utilizing them as primary care staff between EMS calls."

Shift to Evidence-Based Practices. Federal agencies are increasingly investing resources into programs that have strong evidence of effectiveness. Community paramedic programs are gathering data and measuring cost and quality outcomes that can be used by public and

private payers to assess the return on investment for community-based strategies. The strength of the evidence is expected to play a critical role in reimbursement policies for community paramedic services.

Federal Opportunities and Resources

Several resources and tools are available to assist communities as they assess their unmet needs and plan community paramedic initiatives.

Funding for Payment and Delivery Innovations. The federal legislation established the Center for Medicare and Medicaid Innovation within the Centers for Medicare and Medicaid Services (CMS). The center received significant funding to develop and test innovative payment and healthcare delivery arrangements that improve quality and reduce the cost of care for Medicaid, Medicare and the Children's Health Insurance Program. In its 2011 Health Care Innovation Challenge cooperative agreement, the center expressly specified that community-based paramedic models would be considered for innovation grants. Among the innovation grant recipients announced in 2012 are community health initiatives in Washington and Nevada that utilize community paramedics to provide in-home care, patient education and nonemergency phone line for patients with non-urgent medical situations.

Funding and Resources to Assist with Program Planning and Evaluation. In 2012, the Office of Rural Health Policy published the Community Paramedicine Evaluation Tool. The manual is intended to help communities establish a common framework for measuring outcomes and capturing data, both of which are deemed essential for competing for federal and state grants. In addition to communities that already have a community paramedicine program, the tool is expected to help new communities assess their unmet needs and build the necessary partnerships to support a community paramedic program.

Other federal grants opportunities may be available to assist communities with planning and needs assessment. For example, in 2012, the federal Office of Rural Health Policy announced the Rural Health Network Development Planning Grant Program that provides one-year grants to help rural recipients develop a strategic plan or conduct a needs assessment.

Tools for Workforce Development. The evolving role of EMS personnel has implications for workforce policy and development. The National Highway Traffic Safety Administration (NHTSA) published a national EMS Scope of Practice model that could benefit states as they consider the licensure and scope of practice issues related to an expanded role for EMS personnel.

V. State Actions

Across the country, states and communities are paving the way for an expanded health care role for EMS personnel. As described in this section, Minnesota and Maine have adopted community paramedic legislation. Existing legislation defines community paramedics and addresses payment, oversight and program evaluation.

Minnesota Lawmakers Pave the Way for Reimbursement

As the first state to adopt community paramedic legislation, Minnesota lawmakers took a two-pronged approach to recognizing and reimbursing a new class of paramedics, known as

Emergency Medical Technician-Community Paramedics (EMT-CP). In 2011, lawmakers passed legislation (2011 Minn. Laws, Chap. #12) that defined community paramedics and established a process for certifying them. The legislation established training and clinical requirements for certification, including completion of a community paramedic training program from an approved college or university, and authorized community paramedics to provide services as directed by the patient's primary care physician. The law enables community paramedics to provide specific health services, as well as prevention, emergency care, evaluation, disease management and referrals.

The following year, lawmakers authorized medical assistance reimbursement to cover community paramedic services to certain high-risk individuals, including frequent ED users or other patients that have been identified as at-risk for hospital readmission. The legislation (2012 Minn. Laws, Chap. #169) directs the human services commissioner to determine payment rates covered under medical assistance and evaluate the impact on health care cost and quality.

Senator Julie Rosen, chief author of the 2011 legislation, believes the plan will provide additional care with existing health care resources. "It doesn't replace anything [or any provider currently providing services]; it's an add-on to what we already have." She also notes that the approach works equally well across the state, from the Twin Cities to the state's most remote communities.

Rosen pointed out that partnerships and stakeholder engagement were critical to the legislative process. Assembling nursing representatives and other local providers helped to raise and address stakeholder concerns. "It's all about bringing everyone to the table," she said. "It's about providing the best health care at the lowest cost and this is the best way to do it."

The two-pronged legislation achieved several important ends, according to O.J. Doyle, EMS consultant and lobbyist for the Minnesota Ambulance Association and retired paramedic. The initial legislation established a separate certification for community paramedics, with distinct service, training and educational requirements as defined by the EMS Regulatory Board. Defining and certifying EMT-CPs not only defined community paramedics' roles within the patient's primary care team, but it also paved the way for reimbursement. "Without legally establishing CPs as a distinct entity, payment for services would have been nearly impossible," Doyle said.

Although the legislation that mandates reimbursement applies only to public coverage, Rosen and others have an eye on reimbursement from private insurers. "It's one step at a time," she said. Starting with public coverage will enable stakeholders to develop fee schedules and reimbursement procedures, as well as gather data about cost and health care outcomes. "You start public, see how it will work, and then you hope that the private sector will embrace it," said Rosen.

As of August 2012, implementation was moving forward on several fronts. In July 2012, the first class of 13 certified community paramedics graduated from the Hennepin Technical College. The Department of Human Services has sought a Medicaid waiver that would allow reimbursement of community paramedics. According to Doyle, the training program will soon enable paramedics in remote and rural communities to obtain training locally, through a mix of interactive video and local clinical experiences.

Maine Lawmakers Authorize Community Paramedic Pilot Programs

Community Paramedicine Defined
The 2012 Maine Community Paramedicine Law (Chapter 562, Sec. 1 §84) defines community paramedicine as "the practice by an emergency medical services provider primarily in an out-of-hospital setting of providing episodic patient evaluation, advice and treatment directed at preventing or improving a particular medical condition, within the scope of practice of the emergency medical services provider as specifically requested or directed by a physician."

In March 2012, legislators in Maine passed a law authorizing pilot projects for community paramedicine. The law allows the Maine Emergency Medical Services Board to authorize up to 12 pilot projects throughout the state. Working under the supervision of a primary care provider, community paramedics will work with chronically ill patients who are at risk for hospital readmission. During downtime, the paramedic will follow up on healthcare provider referrals and check vital signs, evaluate patients, make sure they are taking their medications as prescribed and conduct treatments. The law also directs the board to submit a written report to the legislature that summarizes the work and progress for each authorized pilot. Bill sponsor Representative Mike Willette told the Journal of Emergency Medical Services that the program could improve quality of life and reduce MaineCare costs and emergency room visits.

The Northern Maine Community College will offer the state's first community paramedicine program in fall 2013. As one of eight nationally, according to the college, the program will focus on licensed paramedics who work in underserved areas of the state. "In rural areas paramedics may be one of the only health care providers in the community," Daryl Boucher, coordinator of NMCC's emergency medical services program told the Bangor Daily News. "With this additional training, a community paramedic can check on high-risk patients with chronic diseases to make sure they are OK, as well as play an expanded role in public health by helping with activities such as immunization and blood pressure clinics."

VI. Up Close: Local Initiatives

Several communities have implemented locally-driven initiatives that expand the primary care role for EMS providers. Cities across the country, from Seattle to Fort Worth, are using first responders to address the problem of ED overuse, typically through a targeted approach aimed at the small group of frequent ED patients. The plan also shows promise in rural communities such as western Eagle County, Colo., where community paramedics are filling some of the community's most serious health care needs. This section profiles two local strategies and illustrates how community paramedicine is being applied in rural and urban settings to achieve similar health care goals.

Community Paramedic Pilot Fills Primary Care Gaps in Western Eagle County, Colorado

Ensuring adequate access to primary care services in Eagle County, Colo.—a rural, resort county in the Rocky Mountains—is a challenge for the county's public health, EMS and medical providers. The Eagle county population, and western Eagle County in particular, face significant barriers to care, including high rates of uninsurance and underinsurance and long travel distances to primary, dental and mental health services. Approximately 30 percent of Eagle County residents lack insurance, almost double the statewide rate of 17 percent. Nearly 60 percent of residents lack insurance in the western half of the county. According to "Healthy Eagle County 2010," 38 percent of households in Eagle County reported having trouble accessing health care and 43 percent said they were unable to access dental care.

The Western Eagle County Ambulance District (WECAD), one of three ambulance services for Eagle County, provides emergency services for residents of western Eagle County and eastern Garfield County, a district that covers 1,100 square miles. WECAD experiences a large volume of 911 calls that are for non-emergency care. "The Western Eagle County Health Services District, similar to other rural EMS systems, experiences calls that aren't true emergencies, but rather of a social service or home health nature," according to the Community Paramedic Handbook published by WECAD. "The District also receives emergency calls of health issues gone awry because medication wasn't taken or an individual waited too long to seek medical attention."

Pilot Program Addresses Community Needs. In 2009, WECAD partnered with the Eagle County Public Health Agency, local providers and hospitals, the state EMS office and the International Roundtable on Community Paramedicine to begin the process of developing Colorado's first community paramedic program.

The partners' aim was to solve the most pressing public and individual health concerns affecting Eagle County residents. Guided by data from the public health department —contained in its "Healthy Eagle County 2010" report—the partners developed strategies to fill the gaps in primary care, dental care and chronic disease management. According to WECAD Chief Christopher Montera, "It's about finding the area of the greatest need in the local community." The program has two primary goals: improve health outcomes among medically vulnerable populations and save health care dollars by preventing unnecessary ambulance trips, ED visits and hospitalizations. To achieve these goals, community paramedics provide a mix of direct primary care services and community-based prevention services.

- **Primary Care Services**. Physicians, including primary care doctors, ED physicians, pediatricians and hospitalists (doctors who specialize in caring for patients in a hospital), refer patients to the Community Paramedic (CP) program to receive specific services within the paramedic's scope of practice. These include hospital discharge follow-up, medication reconciliation, blood draws and home safety checks. When a patient enters the ED and does not have a primary care physician, the CP program staff connects them with one, according to Christopher Montera, WECAD Chief. Each community paramedic visit is directed by a physician's order.

- **Community-Based Prevention Services**. Community paramedics also collaborate with the local public health department to perform public health activities such as immunizations, disease investigations and blood draws.

During the five-year pilot that began in August 2010, the community paramedic services are provided without charge to patients. The program is supported through a mix of county, state and foundation grants, including $170,000 from the Colorado Department of Public Health and Environment's Emergency Medical and Trauma Services Division. State funding, which requires matching grants from the grantee or other sources, supports training for the first group of community paramedics and administrative salaries, as well as research and statistical analysis throughout the funding period. Integrating outcomes research and evaluation into the program is an essential step towards acceptance and reimbursement from third-party payers. "Eagle County will serve as a test case for the State of Colorado," according to the WECAD Community Paramedic Handbook. "We expect to collect enough compelling data to petition to have the program reimbursed by Medicare, Medicaid and private insurers."

Moving Forward with Regulatory Reform and

Reimbursement

While focusing on western Eagle County, the goal of the local program is to replicate it elsewhere in the state. To that end, WECAD is working closely with the state EMS office to develop a regulatory framework that enables ambulance agencies to provide home-based services. Because of their home care functions, the state EMS office determined that WECAD needed to be licensed as a home health agency. According to Randy Kuykendall, deputy division director for Health Facilities and EMS, "This was an opportunity to bridge the two worlds—EMS and home health care." In 2012, WECAD obtained a conditional license to operate as a home care agency.

Following a July 2012 forum that brought together EMS and home care representatives, a task force was formed composed of providers, the state's EMS and trauma council, and home advisory committee. Its task is to explore the development of regulations that would allow entities such as WECAD—or community-based EMS resources, as Kuykendall refers to them—to become licensed as home care agencies. This framework gives the state regulatory authority over ambulance services—Colorado is one of only a few states in which counties, not the state EMS office, regulate ambulance agencies—and ensures protection for patients who receive care through community paramedicine programs. "This is a very different role for EMS," Kuykendall said. "This is not typical 911 stuff. We think that [they] should meet the same patient safety standards as home care agencies. We want to make sure the playing field is even."

With a patient protection system in place, Kuykendall believes programs such as these are the wave of the future "The challenge from a regulatory perspective is developing a framework that accommodates the diversity that EMS personnel can provide" while also protecting patient safety. He believes Colorado's regulatory approach will afford communities flexibility to develop community-based solutions—which he notes will vary significantly across the state—and ultimately pave the way for reimbursement. "The hope is that the regulatory framework will help [these models] develop into a reimbursable activity."

Fort Worth, Texas: MedStar's Community Health Program Targets Frequent 911 Callers

Like other cities across the country, Fort Worth experiences a large number of 911 calls and emergency department visits from a small group of patients In 2009, the Fort Worth Area Metropolitan Ambulance Authority, also known as MedStar, found the ambulance service transported the same 21 patients to local EDs a total of 800 times over a 12-month period, resulting in over $950,000 in ambulance charges alone. This group of so-called "super-users" typically lacks health insurance and relies on EMS and local emergency rooms for their health services. According to a profile by the Agency for Healthcare Research and Quality, "These individuals generally lack health insurance and a medical home and face multiple barriers to accessing care, causing them to repeatedly turn to EMS providers and local EDs with problems that could have been prevented and/or do not require immediate care by EMS or ED staff." The net result, according to AHRQ: "higher costs and the diversion of valuable resources away from true emergencies."

Program Purposes

1. Reduce the probability of providing acute emergency medical care for at-risk patients and the medically underserved, thereby reducing unnecessary health care expenditures.

2. Increase the outreach activity and public education components of EMS providers.

3. Generate a potential revenue stream, including reimbursement for services as permitted by agreements with payers.

Source: MedStar Emergency Medical Services Community Health Program Details

The Solution. In 2009, MedStar developed a program that uses Community Health Paramedics (CHPs) to provide home visits and telephone-based support to frequent 911 callers. The program's goal is to reduce unnecessary 911 calls and EMS transports "that put strain on an already overloaded emergency system, provide the patient more appropriate health care (as opposed to the emergency room), as well as reducing overall healthcare costs." Patients are classified along a continuum, ranging from "active" patients who may receive daily visits to graduated patients who have been through the program successfully and now only receive visits as needed. Paramedics in the Community Health Program conduct medical assessments, develop a customized individual care plan and periodically meet with or call the patient to help them follow their care plan.

The Community Health Program Coordinator meets with hospital, ED and cardiac ICU case workers to discuss patients who are enrolled in the program. Information about recent hospital visits, diagnoses, medications prescribed and discharge and follow-up instructions are entered into the patient's electronic medical record, which helps the paramedics determine how much ongoing care is needed. In addition, CHPs can use this information to identify individuals who may be seeking care and/or medications from multiple providers.

The Community Health Program model has a process for classifying patients according to their ED use and providing the appropriate level of support. CHPs provide ongoing support until the patient can manage their health and health care on their own. At that time, patients graduate from the program with access to ongoing support (through a special 24-hour nonemergency number) as needed.

Program Impacts. According to the AHRQ analysis, the Community Health Program "significantly reduced 911 calls, leading to declines in EMS and ED charges and costs, and to freed-up capacity in area EDs."

- Between July 2009 and August 2011, the volume of 911 calls from the 186 enrollees dropped by 58 percent, from a monthly average of 342 calls during the 6-month period before enrollment to 143 monthly calls after enrollment.
- This decline led to a significant reduction in MedStar's charges and costs. Annual EMS transport costs for enrolled patients fell by more than $900,000 and other charges fell by more than $2.8 million. The region's emergency departments estimated an even larger reduction in charges and costs, including a $9 million reduction in ED charges.
- Moreover, the decline in ambulance transports freed-up ED capacity by as much as 14,000 additional bed hours at area emergency departments, according to MedStar estimates.

Since the inception of the program in 2009, over 300 patients have enrolled in the MedStar CHP with almost all of the patients successfully graduating. According to a recent analysis of annual 9-1-1 use, there was a 41 percent drop in 9-1-1 use among enrolled individuals and a 90 percent drop among CHP graduates.

The program, funded by MedStar, required an upfront outlay of $46,000 for the response vehicle and equipment. Staffing costs, according to an AHRQ analysis, have not increased as existing paramedics now serve as CHPs. As a result of lower call volume, MedStar was able to reduce the budget for non-CHP paramedics by a similar amount to offset the CHP staff expenditures. CHPs devote a portion of their shift time to the Community Health Program and the rest to critical care transports, 911 responses and other tasks. Overall, the cost of the CHP program is $500,000 per year and MedStar is actively pursuing ways to have the program funded by insurance companies, Medicare or Medicaid. According to MedStar the program has saved more than $7.4 million in ER charges and reduced 911 calls among identified patients by 86 percent, resulting in a savings of $1.6 million in ED charges.According to Matt Zanadsky, MedStar's Associate Director of Operations, "This type of return on the $500,000 investment makes funding these programs across the country effective public policy."

VII. Moving Forward: Policymaker Considerations

As states and communities develop strategies for reducing emergency care, they are transforming the way emergency responders interact with patients, primary care providers, the public health system and third party payers. According to a 2012 article in the Journal of Emergency Medical Services, "This is a cultural change in clinical practice unmatched since EMS was introduced." The initiatives profiled in this paper highlight some common themes and key program elements.

- **Partner Early and Partner Often.** Successful initiatives capitalize on and link to existing health care resources and services. Bringing together stakeholders to assess unmet needs, develop community-based solutions and address issues—such as concerns about EMS roles and scope of practice requires strategic partnerships—is an important and ongoing activity. Existing programs point out the importance of connecting EMS activities with a wide range of partners, including: community and health care provider groups; public health agencies; local colleges; state policymakers and health officials; public and private payers; national and international community paramedic organizations; and public, private and foundation funders.
- **Formalize Roles and Standardize Training.** While some states have pursued a legislative approach to defining community paramedics, others—such as Colorado—have adopted a regulatory process. Standardized community paramedic curricula ensures consistent training of first responders to serve their communities more broadly in the areas of primary care, public health, prevention, mental health and dental care.
- **Move Forward on Several Fronts.** The cases of Minnesota and western Eagle County demonstrate the importance of a coordinated and strategic approach that integrates community and partner engagement, training and education, fundraising and research and evaluation.
- **Focus on Sustainability through Reimbursement and Formalized Training and Roles.** While many programs are in the early stages, they are taking steps to sustain and replicate community paramedic models in the future. With an eye on public and private reimbursement for services, programs are tracking outcomes and return on investment in order to make a strong case to third party payers about the impacts on cost and quality measures.

Using community paramedics to deliver basic primary care offers unique opportunities to reduce emergency room contact and improve health outcomes for underserved patients. As policymakers consider their role within this workforce shift, they will benefit from the

experiences of community paramedic pilot programs. Emerging data on cost and quality outcomes will help policymakers and payers assess the impact of these interventions on health care costs and individual and community health. Policymakers can play an important role in ensuring that these coordinate public and private resources, track health care and cost outcomes, and foster innovation while also protecting patient health and safety.